

THE MIX

THE MILLENNIUM ISSUE

LOGIC AUDIO PRO TIPS
The essential guide plus FREE software demo

Issue 70
January 00
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mag + cd

The UK's No.1 Recording Magazine

Eventide Orville

FX processing for
the 21st century

Will your
studio survive the
**MILLENNIUM
BUG?**

PLUS

Sonic Foundry Vegas

MOTU MIDI Timepiece

Digigram VXpocket

DJ Vadim

Nile Rodgers

On producing Chic,
Bowie and Madonna

Strip search

We put Focusrite's
ISA430 to the test

Terratec EWS88MT

PC music has never
sounded so good

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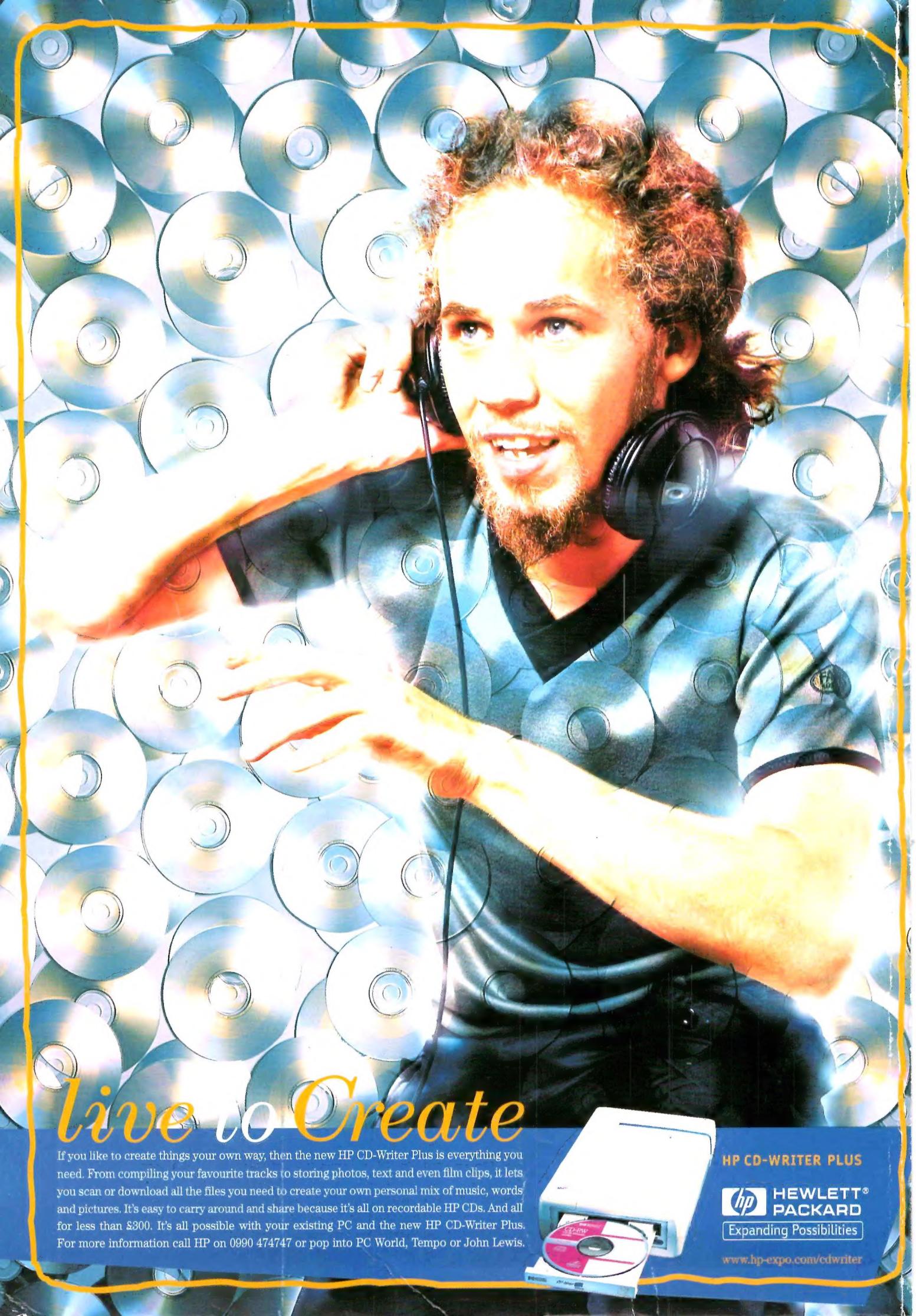


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01



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<http://www.behringer.de/eng/support/software/dsp1400p.htm>

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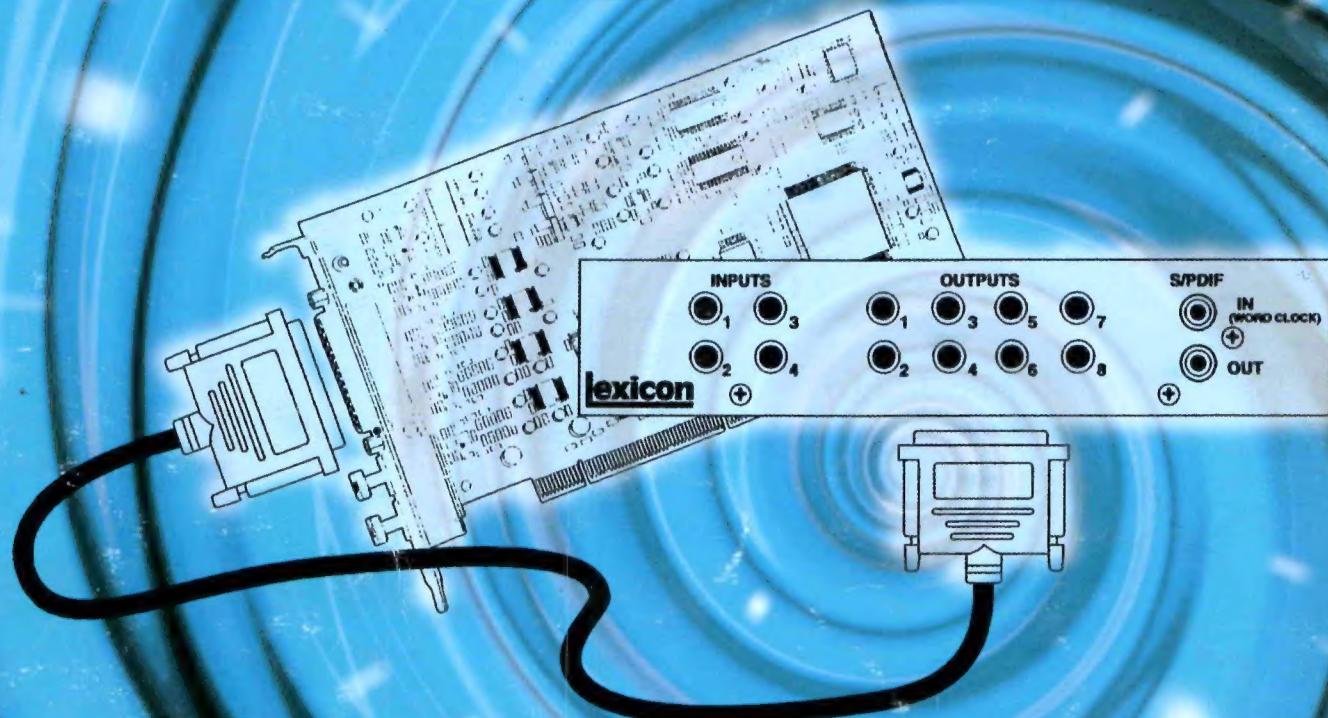
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The MIX ISSUE 70 - January 2000

The Mix

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 Future Publishing

Who's in da house?



Dave Eringa has produced tracks for Manic Street Preachers, Tom Jones, Idlewild and 3 Colours Red

Whatever happened to the good ol' house engineer? Everybody seems to have got it into their heads that freelance engineers are better, overlooking the merits of the house engineer – he works with a variety of producers on a weekly basis, and he knows the equipment and the room so intricately that it becomes second-nature

where to put the kit for a certain sound, because he's done it a thousand times before. So really, a house engineer should be better than a freelancer when it comes to recording – I'm not talking so much about mixing now – and that's why I use them.

It helped that there used to be a definite career progression. In the '70s, the engineers who worked for a studio were recording drums, bass, guitar and vocals everyday, but they'd start as a night receptionist or a tape librarian, moving through the ranks of tape-op an assistant engineer and eventually making it to house engineer. You'd be on a session, and the producer would drop dead or be taken ill, and you'd end up doing a day with the band. If you got on with them there was a good chance that they'd ask you to do some B-sides, and if that went well, you might get their next album. That happened a lot back in the days, but that opportunity just isn't there anymore. I came into the scene at the tail end of those days, and I can

remember starting as a tape-op and thinking 'Hey, one day I'm going to be a producer'. But I don't know if people feel like that now. You just have to be so lucky along the way.

In some respects though, there are currently more openings into the business through things like programming. If you're into dance music you can become a producer overnight, so in a sense it is diversifying – music has changed and there's much less traditional recording going on. For example, look at the huge number of London studios that just concentrate on mixing and don't do any recording at all. How you're supposed to train as an engineer in a studio like that I just don't know, when all you're going to be doing is plugging up auxiliary sends.

There are some great freelance engineers out there, and on the other hand, there are some fantastic house engineers as well, who are eager to please and don't have their own agenda or showreel in mind. If you get one at the right time, when he's really keen and talented, you're going to get a fantastic result.



Dave Eringa

contributors to this issue



Tim Oliver

Our Manchester connection, Tim is currently engineering an album with self-produced soul band Dark Flower for Echo records



Jon Musgrave

A house engineer at Roundhouse studios, Jon has been working on a remix of the Queen/Bowie classic 'Under Pressure'



David Harrow

His alter-ego is the drum'n'bass guru James Hardway, but David puts on his technical hat this month to review Digigram's VXpocket card



about THE Mix

THE MIX is the essential accessory for the recording studio. Our equipment reviews, written by working producers and engineers, give you an impartial opinion of the latest studio and recording gear, and our interviews get to the heart of the current techniques and issues in the recording industry.

THE MIX Studio Series CD helps you produce better music, by providing a varied monthly selection of collectable studio-quality samples and MIDI files, demos of the latest software and hardware, and audio tutorials demonstrating contemporary recording techniques.

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A versatile recording solution for PC, and half the price of the competition? *Adam Crote* investigates

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Does this do-it-all recording strip deserve a home in your studio? *Jon Musgrave* has the answer

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Alan Branch gambles on the latest from the American software giants, and comes home a winner

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An audio interface for your laptop production suite. About time too, says *David Harrow*

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An all-valve desk for the analogue die-hards and those with a passion for quality. *Sean Vincent* gets hands on with TLA's latest

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Adam Fuest traces the history of the MPC range, and comes right up to date with the Limited Edition of 'Akai's classic MPC 3000

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cd contents

about the Studio Series sample CD

Every month, the *Studio Series* CD brings you a selection of top-quality samples that you can collect to build your own sample library. Each CD is themed, with one instrument/sound-type featured at a time, and using our colour coding system you'll be able to locate samples quickly and easily. Need a drum track? Just go to the correct CD, load up the samples, and you're away...



also available from us



Future Music, XFADE,
Computer Music,
Guitarist, Total Guitar,
Rhythm, Bassist,
Guitar Techniques,
and Classic CD

software

track 1

MAC

Logic Audio Platinum 3.5 (p. 86)

If our power tips feature has inspired you to try out Logic, here's a demo of the latest-but-one version.

Bitheadz Osmosis (p. 81)

Transfer Akai and Roland ROM samples to your Mac.

FretPet (p. 81)

Create chords on a fret board, string them together and play.

PC

Logic Audio Platinum 3.5 (p. 86)

See Mac software for full description.

Sonic Foundry Vegas Pro (p. 35)

Try out this audio, video and MP3 multitrack software free for a week.

ReMorph (p. 84)

Morph the six knobs in ReBirth's 303 modules with ReMorph's single control.

Hubi's Loopback Device (p. 84)

Reroute the MIDI ins and outs in your MIDI software internally.

TCNative Bundle 2.0

Demo of the complete recording, processing and mastering bundle for DirectX.

TCNative Essentials 1.02

Demo of the essential tool collection for DirectX.

Millennium Bug (p. 94)

A collection of useful information and Millennium Bug check programs:

Test 2000

A simple, complete and free PC hardware Y2K compliance diagnostic utility.

2000 Test

A couple of DOS utilities for testing and fixing any problems your PC's real time clock may encounter.

Y2K Fix

A pair of utilities to diagnose and – in most cases – fix Y2K hardware problems in IBM-compatible PCs

K3vt06a

More Y2K diagnostics and fixes.

2001 FAQ

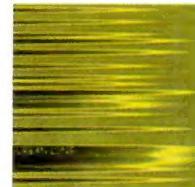
An information leaflet on all you need to know about the start of the next millennium.

demo of the month

track 2

Urban Lung: Blue Rush (p. 103)

Intelligent breakbeat/electronics with cinematic elements. Vocal samples and general mayhem combine to reveal a captivating personality at work.



gear demos

track 3-4

Eventide Orville (p. 22)

Listen to what the next century holds for FX processing (see page 26 for a full description of the processes used).

track 3

1-7 Reverbs
8 Bell Ringer

track 4

9 Ring modulator
10-12 Delays
12 Chorus
13 Fuzz
14 Harmony
15 Larynx Delay
16 Stereoizing Phase

track 5

Focusrite ISA430 (p. 32)

We put the top-quality, all-in-one channel strip through its many paces:

1. Bass riff flat
2. Bass riff with EQ, compression and gate
3. Acoustic guitar flat
4. Acoustic guitar with EQ and gate
5. Acoustic guitar with EQ, gate and compression
6. Loop flat
7. Loop with compressor sidechained by filters to reduce kick frequency
8. Synth flat and noisy
9. Synth gated and filtered



Novation Supernova tracks 11-15



Eventide Orville tracks 3-4



Focusrite ISA430 track 5

Netscape Online
The FREE internet service

track 1

Sign up for the new free Netscape Online Service sponsored by Future Publishing. Netscape Online brings you all your internet needs – browse the web easily with Netscape Navigator, organise your email with Netscape Messenger, and create great web pages with Netscape Composer – and all for free!

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samples

tracks 6-15

Synth Pads

We've collected the 50 best pads from the Korg Triton sampling workstation and Novation's Supernova super-synth module. Check out the Triton samples for some gorgeous multitimbral voicings, while the Supernova is unbeatable for rich, analogue-style synth textures.

Korg Triton

track 6

Pan Tropolis
Simple Pad
Cinematic Strings
French Ensemble
Bellish Pad

track 7

After Rain Strings
Weightless
Smoothie
Pad and Shakulead
Synergy

track 8

Bee Geez
Silk Strings
Dust Devil
Planet Pad
Square Pad

track 9

Water Pad
Sleepy Bells
Awesome String Pad
Vaderial Bells
Arctic Strings

track 10

Imaginary Piz Pad
Soft Piano Pad
Triton Orchestra
Harpsi Pad
Millennium Pad

track 11

Novation Supernova

track 11

One Finger LSO
String & Plucked lead
Absolute Massive
Novestra
Filming in Space

track 12

Solaris
Sinister Pad
Lead & Pad
Minor Evil
Worry Free

track 13

Layered Spectra
Orch Strings
Narcotik Pad
Space Pad
Sepulator Pad

track 14

Arobe + Pad
Lots of Pad
Landing
Spectra Pad
Eleventh Hour Pad

track 15

Spectrux
Don'tcha Worry
HPF Pad
Formant Pad
XMod Pad

Korg Triton tracks 6-10





news

If it's new and it's music production, it's here. All the gear, gossip and goings-on from a month in the biz...

Korg go mad for it

New Oasys monster PCI card comes with synthesis, FX and audio

Mac and PC users will be interested to hear that Korg have been busy working on a powerful new PCI card. Oasys integrates synthesis, effects processing and computer audio into a single PCI audio card, which will work within any MIDI sequencer or software-based digital audio workstation.

The onboard synthesizers give a wide range of sounds based on over 20 different algorithms, including modelled analogue synths, FM synthesis and tonewheel organs, as well as Korg's usual high-quality pianos, horns, guitars and woodwind, to name but a few. You'll also find analogue percussion, tempo-based LFOs and analogue-style sequencers.

Oasys also includes over 100 effects algorithms, many lifted directly from the ubiquitous Korg Trinity synth. The usual suspects are well-

represented, with plenty of reverbs, choruses, flangers, phasers, overdrives and amp simulations, as well as the not-so-usual random filter, stepped phaser and talking modulator.

The effects can process the onboard synthesizers, tracks from digital audio programs, and live audio input simultaneously. Using the built-in mixer, chains of up to four effects each can be used on up to 12 separate channel inserts, four sends, and six stereo output busses.

Just like the onboard synthesis, the effects are plug-ins loaded from disk, allowing for easy expansion/upgrade in the future, and both the onboard synths and effects can be recorded directly into digital audio software without any external connections.

Stereo analogue and stereo S/PDIF, as well as 8-channel ADAT-optical sit alongside Word Clock and ADAT timecode I/O ensuring a high level of compatibility with pro systems.

With allegedly seamless integration with MIDI/DAW software and onboard DSP power that provides zero-latency record-monitoring – even with effects – this is one PCI card to look out for.

As you might imagine, power like this comes at a price, and with Korg UK estimating a four-figure pricetag you'd better start saving. The Oasys PCI will be shipping around the new year.

Features: Korg Oasys

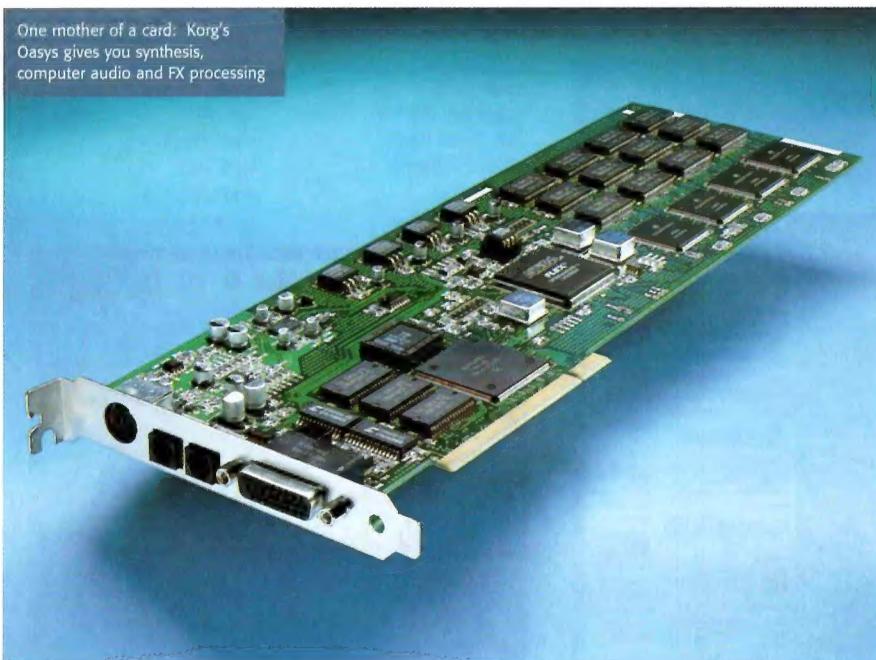
- Synthesis
- Effects processing
- Computer audio
- 24-bit throughout
- BNC wordclock/ADAT timecode I/O
- Software upgrades for synths/effects
- 12-channel mixing

Price: ETBA

More from: [Korg \(UK\)](http://www.korg.com)

Tel: 01908 857100

Web: www.korg.com



More performance from Performer

New features for the Mac audio sequencer

MOTU have added several new features to their Digital Performer audio sequencer for Mac. Most MIDI sequencers have a fixed PPQ resolution, with 1920 PPQ being the highest available up 'til now. In an innovative move, Performer has been given adjustable PPQ resolution, allowing users to freely choose any resolution in the range 2-10,000 PPQ.

MIDI Time Stamping (MTS) is a new MIDI transmission technology providing sub-millisecond timing accuracy during transfers of MIDI data between Performer and MOTU's new line of rack-mountable USB MIDI interfaces, apparently producing the best timing accuracy ever measured between sequencing software and a MIDI interface.

All of Performer's included audio and MIDI plug-in effects can now be fully automated in real-time. Many parameters can be locked to a musical beat value that follows the current tempo of the sequence, and stay in time even through complex tempo changes.

A new MIDI Drum Editor has been added to the package. Features include support for multiple tracks and playback destinations for an individual drum kit in one window. A single drum kit can be assembled with sounds from several sound modules, samplers and drum machines and, for maximum flexibility, each individual drum sound can be muted, solo'd, quantized or otherwise non-destructively manipulated even if the notes reside in the same

MIDI track.

Another innovation is the Pattern Tool, which allows the user to select performance styles for a particular type of percussion instrument and paint them in in one stroke. And with the new G4 Macs coming onstream, MOTU will be accelerating Digital Performer to take advantage of the computer's increased performance.

New features: Digital Performer

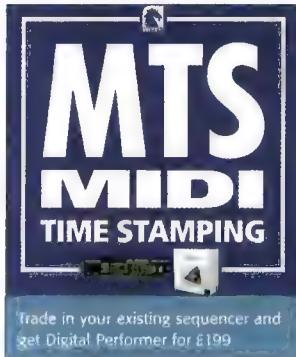
- Adjustable PPQ resolution
- MIDI Time Stamping
- Real-time FX plug-in automation
- New MIDI Drum Editor
- Pattern Tool
- Accelerated performance for G4 users

Price: £549 (£199 for competitive upgrade)

More from: [Musictrack](#)

Tel: 01767 313 447

Web: www.musictrack.co.uk



Green days

JoeMeek have added two new units to their popular range of processors. The VC5v2 is a dual-channel EQ with high/low shelving and parametric mid-controls in the same vein as the Meequalizer, while the VC6Q is a single-channel, mic/instrument preamp, photo-optical compressor, and a Meequalizer channel as well!

Look out for a full review of the VC6Q in *The Mix* very soon.

Price: VC5v2 £299; VC6Q £349

More from: [JoeMeek](#)

Tel: 01626 333948

Web: www.joemeek-uk.com

The JoeMeek line of processors has a new EQ and preamp



in brief



■ ddrum delights

Clavia have released an exclusive

ddrum3 sample CD-ROM with over 2000 ddrum3 instruments. The disk also contains the SCSI Dump Utility for Mac, allowing users with the SCSI/DAT board installed on their ddrum3 to load the samples via the Mac. Clavia have also been busy updating their website. Anyone with a Nord Modular or Micro Modular can download categorised patches for free, and there are over 3000 of them, so there's plenty to keep you busy.

More from: [Hand in Hand](#)

Tel: 01245 225538

Web: www.clavia.se

■ Softy softly

Steinberg claim their new LM4 software drum machine could make your sampler redundant. Essentially a plug-in, the LM4 (£99) features 18 pads per set, pitch and panning for each instrument, and 28 drum sets to get you started. All the settings can be saved within Cubase, and up to eight units can work simultaneously. Anyone wanting more control can build their own kits using 16 or 24-bit AIFF or WAVE files.

More from: [Arbiter](#)

Tel: 0181 970 1909

Web: www.arbitergroup.com

■ Top interfacing

Mark of the Unicorn, stalwarts of the interfacing business, add a fourth unit to their family with the release of the 24i (£1,495), a 24-input analogue audio interface that allows users to bring all of their outboard gear into the computer via 24-bit converters. Taking up a single rack space, the 24i allows simultaneous recording of 24 channels of 44.1 or 48kHz audio, with the unit's main outputs supplied on balanced TRS jacks, optical S/PDIF and coaxial S/PDIF.

More from: [MOTU](#)

Tel: 01767 313447

Web: www.musictrack.co.uk

in brief



On top

Music retailers

Rose Morris have dedicated the top floor of their store in London's West End to Roland products. The space has undergone a massive refit to accommodate all the products, which will include the VS range of digital hard disk recorders, the MC303, MC505 and SP808 Groove products, and the latest VM3100 and VN7 series digital mixing consoles.

More from: Rose Morris

Tel: 0171 836 0991

Web: www.roseorris.co.uk



Computer Music

You get two chances to get your hands on *Computer Music* this month. First up is the regular magazine, with roundups of the best sound modules and cards of the year. Also, on sale from 18/11 is a special issue for those who want to make money from computer music-making. There are interviews with five pros, plus tutorials on squeezing a better sound from XG/GM/AWE modules and cards, plus a 16-page feature on creating the perfect mix. Phew...

New Deal

On October 26, the Government launched its New Deal for Musicians. 18-24 year-olds who have been unemployed and claiming Jobseekers Allowance for six months or longer are eligible for the scheme, the objective of which is to enable musicians to move from welfare into successful careers in all types of music, either as artists under contract, or self-employed within the industry. Contact your local Job Centre for more information.

A first for music on DVD

Sting's new album *Brand New Day* has been mixed to a Genex GX8500 by Simon Osborne and Elliot Scheiner, for what is thought to be the first 24-bit/96kHz DVD album release. Osborne, who also recorded the stereo mix to a Genex GX8000, said "We wanted to record the mixes at the highest possible quality, and after auditioning a number of available systems, we found that the Genex with Prism converters sounded the best. Genex is one of the very few recorders capable of handling a multichannel 24-bit/96kHz recording and the MO drive gives it a great advantage. The MO medium is very convenient and easy to handle".

Sting fans, don't miss next month's issue of *The Mix* when we'll be bringing you an interview with *Brand New Day* producer Kipper.

More from: HHB Communications

Tel: 0181 962 5000

Web: www.hhb.co.uk



Arboretum launch Hyperprism 2.5

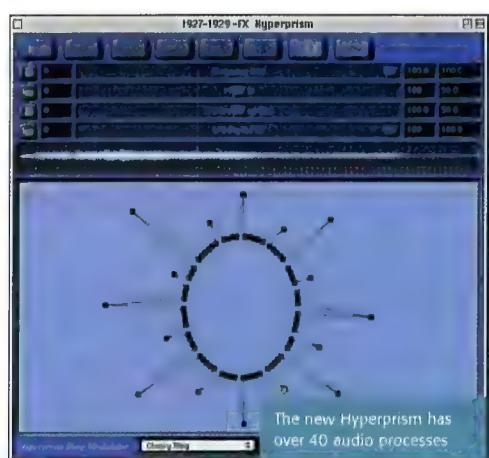
Hyperprism 2.5 is Arboretum Systems' new real-time standalone sound processing software for Mac, offering over 40 different audio processes, including the interesting new...

■ Granulator, described as a sonic food processor. It chops up audio into tiny pieces and rearranges it in fascinating ways with lots of user control over the process.

■ Formant Pitch Shift, which apparently offers a more natural-sounding result than time-based pitch shifting, but still allows the creation of some very unusual effects through the virtual changing of the size of the singer's head and throat.

■ HyperPhaser, which has a sound reminiscent of a flanger or phaser but is actually a modulated filtering effect with eight resonant filters, configurable as either band-pass or band reject, all under LFO control.

Also included in Hyperprism 2.5 are a Harmonic Exciter, Bass Maximizer, Vocoder, Reverb and valve/tape saturation effects, amongst others. Every effect parameter can be changed with a single mouse movement and Hyperprism 2.5 remembers and replays every mouse gesture to create sounds



that change in real-time. A plug-in version is to become the first full-featured multi-effects package for the Soundscape platform.

Prices: £265 (TDM version £379)

More from: Unity Audio

Tel: 01440 785 843

Web: www.unityaudio.co.uk

New sample CDs

Time + Space have announced four new additions to their range of sample CDs, two from Big Fish Audio and two from Spectrasonics.

Big Fish Audio's *Performance Loops* – Drums Vol. 1 (£70) is full of samples pre-edited to exact tempos, from which you can construct a drum track that sounds like it was played all the way through by a real drummer. With digitally mixed and mastered 16-bit, 44.1kHz stereo files, this two-CD set has over 1000 drum loops, variations and fills at each tempo and style.

The second Big Fish Audio production is called *Alien Artifarts* (£60). According to the creators, "this disc evokes the ghostly echoes of a long-dead interstellar civilisation. Mind-numbing sounds only a superior intelligence could have created: some incomprehensible

and profound, others disturbingly human. As the artifact is unearthed, the mind resonates to these other-worldly sounds, as if deep in our genetic code we were always meant to. Have you wondered, are we alone? The answer awaits you..." Hmm... best stay off the cider, lads.

The two Spectrasonics CDs offer some

unusual takes on guitar sounds and are available in both audio and CD-ROM formats.

Bizarre Guitar, created by guitarist Peter Maunu and sound designer Eric Persing, uses tape loop techniques, E-bow, signal processing and the Roland VG-8 guitar system to produce ambience beds, unsettling washes and searing harmonic slashes. The audio CD costs £60 while the ROM version is £119.

Hans Zimmer Guitars Volume Two is a brand-new volume of guitar multi-samples put together by guitarist and sound designer Bob Daspit. Many of the expressive instruments feature velocity switching, up and down slides, and a new method of controlling vibrato with dynamics. Instruments

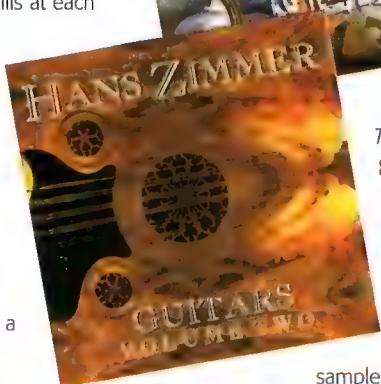
sampled include, among others, fingerstyle acoustic guitar, a selection of Middle Eastern instruments, lap steel, electric sitar and baritone electric guitar. The audio version is £60, while the CD-ROM will set you back £179.

Prices: see above

More from: Time + Space

Tel: 01837 55 200

Web: www.timespace.com



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Banish those computer conflicts: the Audio Master PC works straight out of the box

Is your computer experiencing more internal conflicts than an African dictatorship? Then get onto FAQ System Engineering. Their new Audio Master PC may be just what you need for an easy life. Developed to work with DAW and MIDI applications, the AMPC works straight out of the box. Based around an Intel PIII, the unit comes pre-configured with Soundscape Digital's Mixtreme

card, the LE version of Nemesys GigaSampler and the audio package of your choice, be it Logic, Cubase or Cakewalk. The system comes bundled with an on-line training course and three-year warranty, and a laptop version is also available.

At present, the company is

shipping the unit directly from the

USA, but UK distribution should

be in the pipeline soon.

**More from: FAQ System
Engineering**

Tel: 001 770 409 8823

Web: www.faqsys.com

in brief



Bags in

New
Leicestershire-based outfit
The Handbag

Factory Studio is not, as the name suggests, uniquely set up for producing cheesy house tunes. Built in an old handbag factory, the studio has a large live area, as well as a mass of analogue and digital gear.

More from: [Rick Beaumont](#)

Tel: 0116 284 9934

D8B dynamics

Drawmer and Mackie have teamed up to produce two dynamics packages for Mackie's Digital 8-Bus console. The first incorporates industry-standard Drawmer gating, compression and limiting, while the second, a more advanced version, includes further innovations, such as Drawmer's Peak-Punch algorithms.

More from: [Drawmer](#)

Tel: 01924 378669

Web: www.drawmer.co.uk

Direct action

Wave goodbye to those DI blues with MTR's convenient addition to the family. The DI-6M (£309) is a 1U rackmount containing six active DI channels, each one comprising jack input, link-out socket for onstage monitoring, and main outputs on balanced XLRs on the rear panel.

More from: [MTR Ltd](#)

Tel: 01923 234050

RADAR upgrades

Otari have introduced upgrades for their RADAR II digital multitrack recorder. The new features include a plug-in 24-track AES/EBU interface, waveform graphical display and editing, a built-in RADAR remote for Otari's ADVANTA digital large-format console, and a 25GB high-speed AIT streamer backup option.

More from: [Stirling Audio](#)

Tel: 0171 624 6000

Web: www.stirlingaudio.com

One strip at a time

API release console strip and graphic EQ



High-brow US audio company API have introduced the 7600 channel strip, a 1U rack-mounted input module available in both horizontal or vertical configuration, which can function singly as a standalone unit or can be combined with others to build a complete console.

The 7600 features an API mic pre, compressor and EQ. While the EQ is an exact re-issue of the famed 550a, offering three bands of EQ with seven frequency choices per band, the mic pre and the compressor (212L and 225L respectively) are the same as those found in the Legacy console.

For anyone using the 7600 strips to build a console, there is the optional 7800 Master Module, which can accommodate multiple 7600 strips to form a complete multichannel console.

API chief engineer Paul Wolff feels that the 7600 fills the gap between low-cost multi-function consoles

and high-quality recording consoles. He commented "The API 7600 is an idea who's time has come: a complete channel strip from a high-performance console that can be used as a stand-alone, or can be combined in multiples over time to build a complete API console one strip at a time."

In another move, API have unveiled their 560 10-band graphic EQ, an exact remake of the 560 originally produced in the '60s and early '70s. The new model fits into flexible outboard modular frames rather than directly into consoles like the original, and forms part of the modular 500 series, which also includes a compressor/limiter, mic pre and equaliser.

Prices: **£TBA**

More from: [European Audio Group](#)

Tel: 01778 344 110

Web: www.audiotoys.com

Small is beautiful

AKG have improved the design of their CK77, the world's smallest dual-diaphragm microphone, making it perspiration-proof and water-resistant.

The previous design featured a hole in the diaphragm for pressure compensation, which was potentially susceptible to penetration by liquids (and therefore short-circuiting). A compensation cavity sealed with a soft, flexible diaphragm has now solved the problem.

The CK77WR will be available in white, black, or flesh-tone, with a variety of windscreens.

Price: **£170**

More from: [Arbiter](#)

Tel: 0181 970 1909

Web: www.arbitergroup.com



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CFX•20

16 mono mic/line channels + 2 stereo line level channels



CFX•12

8 mono mic/line channels + 2 stereo line level channels

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Visit a Mackie dealer and get your hands on the CFX™ Series, the first EFX mixers that don't scream "CHEAP!" and yet are remarkably inexpensive.



The graphic equalizer is always in the signal path of an EFX mixer. If it's substandard, so is the sound of the mixer. Mackie's CFX Series have expensive, studio-grade graphic equalizers that use multiple summing amps and precision infinite feedback band-pass filters for superior phase and combining properties. Bottom line: The best EFX mixer you ever heard—whether you adjust the graphic EQ or not.



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Another SSL for Roundhouse

Roundhouse Studios have taken delivery of a brand-new SSL 4056 G+SE for Studio One. Despite having SSLs at the studio for over 20 years, they decided to shop around before deciding on the new SSL, eventually going for the combination of features and familiarity.

After a party to celebrate the installation of the new console, *The Mix*'s very own Jon Musgrave and Alan Branch, and SSL's Simon van Zwanenberg were spotted crawling off in the wee small hours, and were last seen falling into a canal.

More from: Roundhouse
Tel: 0171 804 3355



Pod almighty!

What's the similarity between a 747 and a pair of speakers? There's always a black box involved somewhere along the line (*boom, boom – Ed*). So how refreshing it is to see the Minipod, which you may have spotted in *Lost in Space* or even nestling with other classics in the Design Museum. Available in four colours, the Minipod stands 17" high and comes with its own 'sputnik aerospace stands' and carrycase.

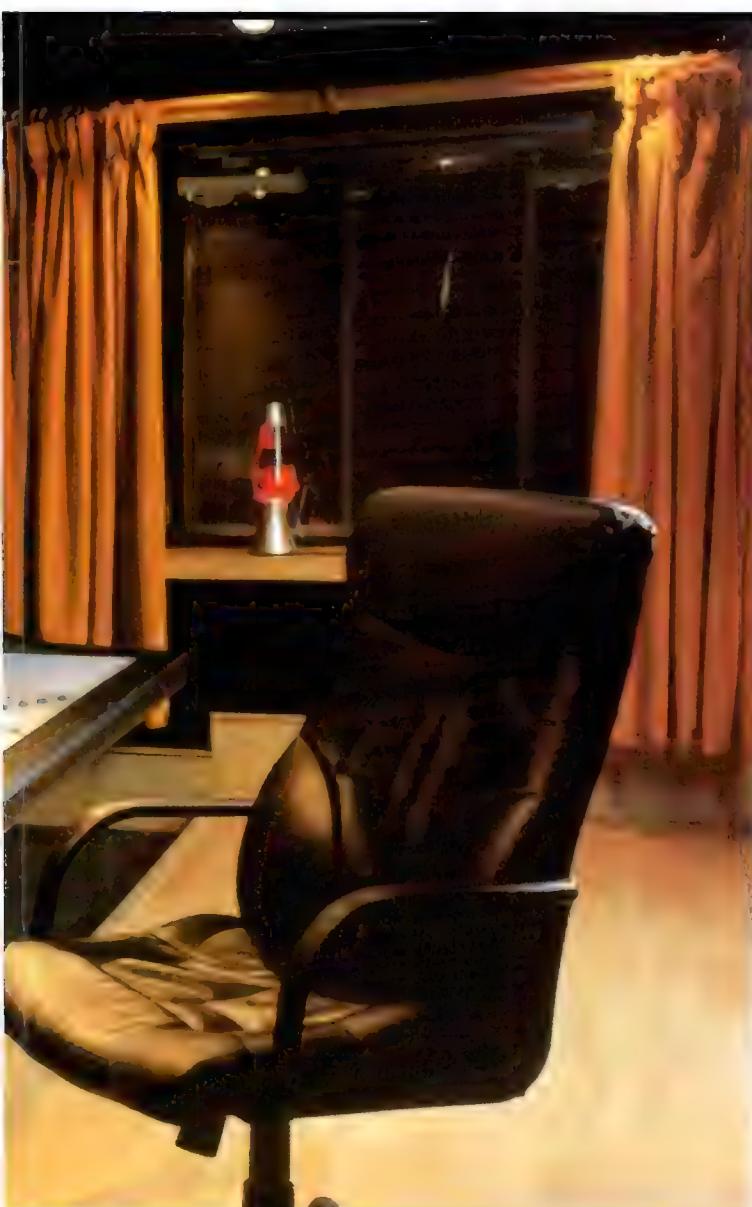
Price: £259

More from: Blueroom Loudspeakers

Tel: 01903 260033

Web: www.minipod.com

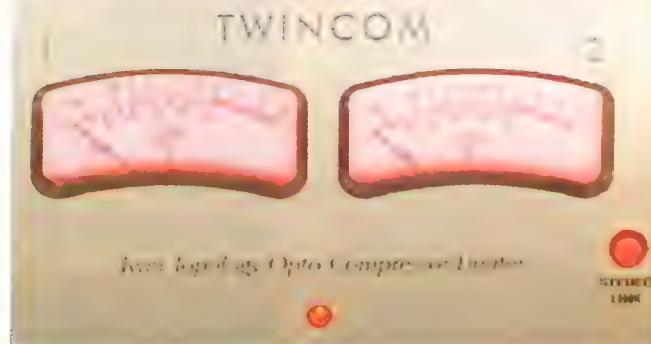




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in brief



In the cans

Sennheiser's new HD270 headphones

(£80) are pitched at the ever-growing markets of home studios, location recordings and DJs. The HD270s closed-back design gives good acoustic isolation and reduces the chances of feedback in live situations.

More from: Sennheiser UK

Tel: 01494 551551

Web: www.sennheiser.co.uk

Bristol studio reopens

SOA recording, formerly known as State of Art, has reopened for commercial use. Formerly co-owned by Portishead's Geoff Barrow, it spent several years as a private studio, playing host to some of the track-laying for both Portishead studio albums, the critically-acclaimed *Dummy* and *Portishead*. Facilities have been upgraded to include a DDA AMR console with automated mix system and ATC 100A monitors. Recording is to 24-track 2" analogue, and outboard equipment includes an EMT plate as well as TLA, Tubetech and Summit units.

Price: £250/day
(includes engineer)

More from: Stuart Matthews

Tel: 0117 955 4008

TC card for Yamaha

TC Electronic are producing an effects processing card for use in the new Yamaha PM1D digital mixing console. The new card should be ready for the first quarter of next year and will be fully integrated with the PM1D and controlled from within its mixing system. Effects for the card will be provided in tailor-made software packages, one of which will specialise in reverbs, while another will be a multi-FX package. More software packages, some from third-party companies, are currently under development.

More from: TC Electronic

Tel: 0800 917 8926

Web: www.tcelectronic.com

Neve-ho!



In a spectacular operation involving a tug boat, a mobile crane and high tide on the Thames, a custom 80 Series Neve console was lifted out of a studio on an 110ft Dutch barge, for the first stage of its journey to a new home in the USA. London-based equipment retailers Funky Junk arranged the sale of the desk, owned by Ian Broudie, to Gary Belz of the House of Blues. Previously owned by Pete Townshend, the Neve will be available for hire for location recording.

More from: Funky Junk

Tel: 0171 609 5479

Web: www.funky-junk.com

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open mic

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Details, details...

Thank you very much for the nice article about our little converter unit (*The Mix* issue 68). It is very much appreciated. Unfortunately, we made two mistakes. You mentioned that the unit comes without a manual. That's right, but not intended. There is a manual (revision 1.2) that can be downloaded from our website (www.rme-audio.com). Normally the A4 printed sheet should include a note that a more detailed manual can be found on the RME Driver CD. And this was the second mistake, as your unit was shipped without this CD. We will change the sheet immediately and ensure the CD is always included.

You also mentioned the 'non UK' power supply. Our UK distributor is currently sorting out a U.K. power supply. I contacted our manufacturer this morning about the loose power cable input. They told me that they have just begun to use another power inlet, which is more stable. The unit you got for testing must have been one from our last production series.

Matthias Carstens, RME

Vanishing act

Thanks for a great mag. I've had it from the year dot. As time goes on though, I'm experiencing a niggly problem: finding a previous review/feature/article, which I know exists 'cause I remember seeing it. So, could you please publish in one of your issues (or separately) a comprehensive index of all the contents



The '80s: Golden Age of music, or merely the inspiration for The Thompson Twins' (and an entire generation's) hairspray abuse?

of all the issues of *The Mix* to date? This would be great and would make all the old issues valid again.

Alan Saunders, Stoke on Trent

I haven't bought an issue of *The Mix* since October last year, and a few days ago I bought the latest issue, looked for the Manufacturers' Address page and... Oh! It's gone. Why the hell don't you include it in your mag anymore? Apart from that, great mag. Thanks!

Neme, by email

Ah, the much-loved Buyer's Guide. Nice to know that it's missed. But sentiment aside, we decided that our readers would be better-served if we put this type of information on our new-improved website, which will have links to/contacts for all the top studio equipment manufacturers. The site will also have a searchable database of all our articles, so that will solve your problem, Alan. We've got lots of other plans for the site, and if any other readers have any suggestions, email me at themix@futurenet.co.uk. The site will be launched very soon, but in the meantime, get yourself over to www.themix.net and put your name on the mailing list, so we can let you know when it's fully up-and-running.

Andrea Robinson, Deputy Editor

Arthur says relax (cont'd...)

Regarding Jarvis Muswell's answer to Arthur Baker (*Open Mic*, issue 68) I'm always fascinated by this everlasting battle between advocates of various phases in music. I don't really think there's any Golden Age in music. There are sounds corresponding to periods of time (like disco for the '70s); some of them influenced some of us; some of them didn't. Of course someone like Mozart is probably more essential and has probably influenced more people than Benny B, (a really bad French band) but does this mean there were no crap musicians in 1700? Of course not.

Everybody takes what they want from music, and what you say is the Golden Age of music could be the worst period for your neighbour or even for the people that made the music you like. Hoping that we are evolving from bad to good, we could assume that only the good will be remembered.

Amaury La Burthe, France

What's more important: what is 'remembered', or what has the most impact at the time it is released? Right now, given the choice of listening to Basement Jaxx or Mozart, I'd choose the former. Will I remember it in 10 years' time? Who cares?

Andrea Robinson, Deputy Editor

Master mind

Something that would be of great use to readers like myself would be to hear a mix as it comes out of a studio ready for premastering, normalising, and so on, and the finished product after premastering. This could be so easily demonstrated on *The Mix* CD. The reason I say this is that an engineer recently remarked to me that I should not attempt to get exactly the same sound as that of a CD, as the mastering changes things, often radically.

J. Roper, Hyeres, France

Although we like to think of ourselves as veritable fonts of all knowledge, we must admit that we hadn't thought of that one. And what a good idea it is too. If a feature on the ins and outs of mastering, complete with CD demo, is what you want, then that is what you shall have (well, soon, anyway).

Adam Crute, CD Editor

Electric inspiration

A big thank-you to Trevor Curwen for the marvellous article about Jimi Hendrix' recordings (*The Mix*, issue 60). It answered all my questions and more, as the story of Electric Lady Studio gave me a kind of inspiration when setting up my own recording suite. I opened commercially in March, and things are going on quite well, as I'm producing albums for local bands and working with an independent record label.

By the way, don't you think that choosing the winners of your competitions from the first correct



Sponsored
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answers that arrive is unfair to us foreign readers?

Giovanni Guelfi, Genova, Italy

Glad you enjoyed the Hendrix installment. If any other readers would like to know how any recorded sounds were created, drop a line to *Petsounds* c/o *The Mix* and I'll get on the case. As for the competitions, all entries go into a box, from which we randomly draw a winner (well after the closing date), so foreign and UK readers alike have an equal chance of winning.

Trevor Curwen

Win this ace baseball jacket!

The author of the best letter we receive each month wins this fabulous Shure baseball jacket. So get thinking and writing – it could be you!



letter of the month

Record company rant: Pt II

It was with interest that I read both the above letter and your reply to it, (*Open Mic*, issue 68) as I have just posted my first mp3s on mp3.com (www.mp3.com/artists/54/nanhyer.html). It seems to me that you miss an important point in your defence of record companies: Sure, record companies have historically performed important roles as gatekeepers and filters and no doubt will continue to do so for many moons to come. However, that is not to say that "weeding out the talented from the no-hoppers, nurturing that talent, shaping it..." are not all functions that services like mp3.com and peoplesound may yet fulfil as these young organisations develop. At the end of the day the question is probably only of academic interest because as soon as the internet publishers start making big enough waves, the transnational multimedia corporations will buy the little guys out of the market.

Boff, by email

I think the main thing that will ensure the survival of the 'traditional' record companies is their marketing clout. I stand by my (admittedly cynical) appraisal of the music-buying public, and maintain that without the mega-marketing strategies put into force to break products by new (and even long-established) artists, most records would never be sold at all. That kind of marketing needs to be in-yei-face, not dependent upon the punter having the initiative to search the net. However, I'm willing to be swayed, and if any readers have success stories to share about marketing their own music on the net, please share them with *Open Mic*.

Andrea Robinson, Deputy Editor





Eventide Orville

Multi-channel effects system

Price £5,282

For True multi-channel surround sound FX ☺ Stunning array of usable presets

☺ A new world of programming capability

Against Low-resolution screen ☺ Slow reaction to button presses

☺ Hidden functions not labelled

Verdict Behind the quirky interface lies an effects system that leaves the competition standing

Anyone who's been into a studio in the last ten years will be familiar with the Eventide name. The H3000 resides in the racks of pretty well all the top studios around the world, and is favoured for the more weird and wonderful effects using a combination of pitch shifting, modulation, delay and reverb. But for the safe it also has a popular rich chorus, and before auto-tune came along, you could often find an anxious producer scratching the dial to correct the pitch of a lead vocal while the singer was down the pub.

The H3000 doesn't play it safe; you either love it or loathe it, and Eventide have extended that approach to their newest product, the Orville. OK, now stop laughing the lot of you. You have to understand that being American, Eventide don't suffer the same associations as we do. They were lucky enough not to have been subjected to a nauseating fluffy green duck with a silly voice by the same name over there on the other side of the Atlantic. If only they'd asked us first...

Overview

It would be a simplification to describe the Orville as two H3000s in one box, but that's a good place to start. It's more accurately two H4500 units in one box (the 4500 is the rarer big brother). It's comparable in architecture to the Lexicon 480 and the TC M5000, with two effects engines and numerous input and output combinations. But with the other two, those effects engines are separate – the Orville is the first of its kind to offer true multi-channel effects outputs for the surround sound generation, by allowing each effect to be routed to all outputs.

The Orville offers much more than just pitch shifting and delay, encompassing dynamics, filters and sampling as well. But let's start outside the box. Eventide have never been a company for slick design. If Jeremy Clarkson was doing this review, he'd probably describe the Orville's aesthetics as being East-European influenced. He'd have a field day with the build as well ('slots neatly between a Metro and a Sinclair C5'). It's solid with an all-metal chassis and weighs a lot, but the wobbly buttons don't inspire confidence and the low-resolution LCD display reminds me of my old Casio FZ1 sampler. More worryingly, there's no glass front to the screen, which must make it vulnerable to damage, especially if it's destined for a life on the road.

But these are all cosmetic superficialities. It's what's under the bonnet that really counts, and the Orville is definitely the new no-frills, high-performance car of the audio world. (Quick edit to the Orville screeching off into the distance in a cloud of dust.)

Just about the most confusing aspect of the Orville is the routing options. It took a good while to completely understand the possibilities and how to achieve them, and even now it doesn't come naturally. Not the sort of thing you want to get to grips with during expensive commercial studio time, but the chances are, in a studio it will be set up one way and remain so.

There are four analogue inputs (1/4" balanced jacks) and four analogue outputs (balanced XLRs), and four digital inputs and outputs (AES/EBU, with the option of S/PDIF for input/output 1 and 2). Any, all or none of the inputs can be routed to either, both or none of the



CD info

track 03-04

Hear the kind of FX processing most of us can only dream about, with this taste of some of Orville's 880 presets (full details on page 26)

words **Tim Oliver** images **Gavin Roberts**



two Digital Signal Processors, called imaginatively DSP A and DSP B. The signals from the two DSPs can be routed to each other or to any or all of the audio outputs, and analogue and digital inputs and outputs can be used simultaneously. Once the routing's set up the way you want, which is done logically in the set-up pages, it's a good idea to save the configuration in case it's changed accidentally and takes two weeks to get back to how it was.

But sadly, the logic doesn't extend to having the routing memory in the same pages. That's hidden behind the Program page, accessed by holding the Program button down. It's not labelled anywhere and there's no way you could possibly expect to find it without referring to the manual. It could so easily have been a soft key menu option in the set-up pages and saved us all a collective couple of days.

But the comprehensive routing options make for some very elegant arrangements. For this review the inputs were on digital sends from Logic Audio's studio environment. The outputs were sent two ways: the analogue outs were patched directly into the desk for

monitoring, and the digital outs were sent back to the computer to record the effects, either for editing or to free up the Orville for more audio skull-dugery.

Each DSP runs a single program, and there are hundreds of pre-sets to choose from – 880 to be precise – in 80 banks containing anything up to 48 programs. Once a program is loaded into the DSP you can adjust the parameters much like on the other Eventide products. The banks are well-organised into groups of FX, and with a bit of tweaking most people should quickly be able to find something to suit.

Tailor-made

But if you can't, and you have plenty of time on your hands, there's a whole new world of the Orville to discover. You can program your own tailored algorithms by combining any number of effects modules that you fancy. This is done either internally or using a PC via the RS232 interface on the back (See the section on *Proper Programming* on page 25). Macs have allegedly worked using PC Emulation software, but enter that minefield at your peril.

specifications

Sample rates

44.1, 48, 88.2, 96kHz

Digital I/O

4 AES or 2 AES and 2 S/PDIF; optional sample rate conversion and sync board

Analogue inputs

Balanced 1/4" jacks

Analogue outputs

Balanced XLRs

Dynamic range

>110dB

DSP

24-bit

Size

89 x 483 x 317 mm



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It's unlikely that most people will have the luxury of time to make up their own programs, which is why there are so many presets, but it will appeal to sound designers the world over who will no longer have to limit their effects palette to someone else's creations. Any tailored presets or created programs can be named and saved in an existing bank or new bank. And if you're travelling from studio to studio with an Orville, there's an external memory card for taking your favourite programs with you. So, let's see how it sounds.

In use

As you'd expect with a 24-bit digital processor, there's no need to talk about noise or other sonic technicalities. The real issue is the subjective valuation of how useful the effects are. H3000 fans aren't going to be disappointed – it's all there and more.

For fresh converts, the danger is being put off early on by the Orville's two big obstacles: getting your head round the architecture and overcoming the distinctly unfriendly user interface. There's quite a feeling of distance between you and what's going on in the machine, with slow, sometimes even non-existent button response and poor screen visuals. But don't be disheartened, because the Orville sounds stunning. The

range covers all fields of effects and does so with a consistency that puts most other multi-effects units to shame. The chances are that most users won't get beyond the factory presets.

The Orville isn't a reverb specialist like the Lexicon 480, so you can't expect it to compete alongside that for quality and quantity, but it stands up pretty well. You can hear some of the reverbs on the cover CD (see the *CD demo* section on page 26 for a run-down). There are seven banks of reverbs covering the usual

halls, plates and rooms, plus some 'special' reverb effects that you probably couldn't get away with using more than once.

The best are the halls, which have a very natural decay and an even, fluid density. It's quick and easy to adjust the decay, pre-delay and cut-offs to tailor the space to your needs. Rolling off the high end created some very rich, warm reverbs. If anything, the high end was a little on the harsh side rather than offering the satin brightness of a Lexicon, but it'll help to make it cut through the mix. The rooms are tight and dense, giving an increased sense of power and volume to the sound, while the plates, which, though pretty realistic, aren't a patch on the real thing. Sadly, we can't bring you the 360° quadraphonic reverb presets on this month's cover CD.

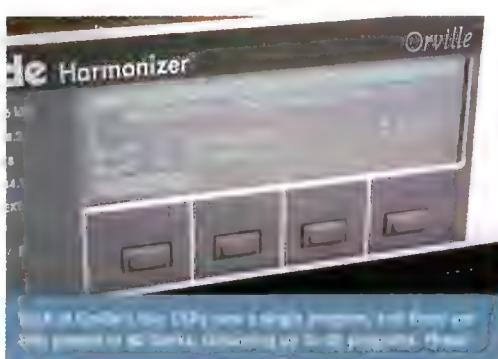
In harmony

Delays and harmonizing are really what Eventide are famous for, and the Orville continues that tradition. The delay presets seem endless and the most interesting ones have a twist to them. For example, one which has four delay times also has a ring modulator connected to each delay, and a similar one has a different band-pass filter on each one. (Hear them both on the cover CD.)

But it also does the simple things well. Many

of the delays have BPM settings to automatically find delay times, making for a quick set-up. You only have to go through the different note lengths to find one that works. There's an infinite combination of routing and feedback between effects modules to be had once you get into the programming side, so the delays won't get boring.

The harmonizing is pretty much as you would expect. It's useful for rich chorus and occasionally for special effects. Remember the manual tuning





On the CD

1. EMT-style plate reverb. A simulation of the ever-popular EMT plate.
2. Master Hall. A natural and dense decay.
3. Drew's Dense Room. A thick room to enhance size and power.
4. Echospace of God. A reverb effect for those long lingering last beats of a song.
5. Ghost Air. Another reverb effect useful as a one-off.
6. Resonchos. A mad effect from the Unusual Reverbs bank. It could well be used subtly within a loop.
7. Tremolo Reverb. What more could you want for that Spaghetti Western theme?
8. Bell ringer. One of the many ring modulation effects. More like a bouncing ball.
9. Envelope Ring Modulator. The various ring modulators in combination with other FX add an interesting new slant that helps to make them work.
10. Delays 8PM-4. Set the tempo and scroll through the note values to find the delay time that works – in this case a 1/4 note and a 1/16 note. The four in the title of the program is for two other delays on the other two outputs for surround effects.
11. Band delays. Each of the four delay times can have its own band-pass filter applied to it.
12. Circle Ring Taps 2. More special delay effects, this one with ring modulators on each tap.
13. Chorus 5. Typical rich warm Eventide chorusing.
14. Larynx Fuzz. The Eventide boxes are proving useful in live guitarists' set-ups so there are a few banks of clean and distorted guitar effects to choose from.
15. 5th Place. A perfect fifth harmony with a bit of colouration.
16. Larynx Delay. Envelope filters create this interesting effect.
17. Stereoizing Phase. The phase programs are mostly extreme, though some are a bit too polite.

» we used to have to do – going at it over and over again to the point where it was impossible to tell whether it was in tune or not? Auto-Tune saw that off a while ago, but the Orville comes back with a couple of auto-correction presets (one mono, one stereo) that work seamlessly and even allow you to add an automatic harmony if you want.

The dynamics and EQ sections of multi-effects processors are commonly ignored because there are usually individual units that do a much better job. This isn't necessarily the case here. The compressors can be both invisible for accurate level control, or severe for more pumping in-ye-face results. There are 3-band and 5-band compressors, ones with EQs, and of course, all sorts of tremolos and gates.

Using the Orville more or less like a plug-in with the digital ins and outs helps us lazy people to get round to using the more unusual features. Everything can be done from the computer: select the preset you want over MIDI, and if you have librarian software you can have a list of them in front of you rather than have to turn round to look at the box. And there's more: all the parameters can be controlled over MIDI, including the output levels if you have the patience to map them all. Finding how to map them is again, impossible to find without recourse to the manual (you have to hold the 'select' button down for a second). Once into the right page though, it's a simple case of assigning a MIDI controller to whichever parameters you want to control and then re-saving the program for future use.

Guitar and special FX

Banks of guitar effects are included, both clean and distorted. The H4500 became popular with guitarists because of the footpedal arrangements, and the Orville takes this on. You can configure the machine, not only to advance through programs, but you can also set a couple of parameters to be controlled by two external volume pedals. Most of the guitar presets are of the fuzzy distortion type rather than amplifier emulations, but sound pretty useful all the same.

A few banks of special effects give some idea of what can be achieved when your imagination is flying. Some highlights include the special vocal effects such as CB radio, megaphone and all sorts of radio and telephone voices. The range of phasers is excellent: some are subtle, some extreme, others float off into

reverb or delays, or both. One bank of presets is devoted entirely to emulating classic settings of vintage effects units such as the AMS RMX 'ambience' reverb and the EMT plate. Best of all is the Mutron phaser.

As you're probably beginning to realise, beyond simple parameter changing, nothing on the Orville is particularly intuitive. And this is certainly true of the bypass arrangement. Hitting the Bypass button opens the bypass options window where you can configure the way it works. For example, you might only want to bypass one of the DSPs. But nowhere in the options window does it tell you that to actually use the Bypass button for its proper function you have to hold it down for one second. A pattern of logic is emerging.

Verdict

The Orville is without doubt a beast of a machine, breaking new ground in its approach to effects design. With the comprehensive routing arrangements and simultaneous analogue and digital inputs and outputs, it can be incorporated elegantly and effortlessly into the modern digital studio.

As the demand for surround sound grows, Orville's ability to produce true 4-channel effects is going to set it head and shoulders above any potential rivals, and the fact that you can go into the machine and create your own algorithms should keep it there. Every sort of effect is covered and there isn't a weak area, unlike most multi-effects systems.

But despite it being a stunning and innovative machine, there's still plenty to moan about. The front panel looks and feels very dated: the screen and graphics are like something you'd have found 15 years ago. And the user interface is not as intuitive as most digital processors have become, as some important windows are hidden unlabelled behind others and are only accessed by holding buttons down – not the sort of thing you can find easily by trial and error.

In the big picture though, these observations are pretty insignificant. Invest a bit of time in getting to know it, and the Orville will be a great partner for the next decade.

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FM



Terratec Audiosystem EWS88MT

Multi-purpose PC recording card

Price £399

For Excellent sound quality **Against** Stable and powerful drivers and software **Against** Easy and intuitive to use **Against** ASIO drivers **Against** Up to four cards in one PC

Against We can't afford four of them

Verdict An affordable audio I/O solution that reinforces Terratec's reputation for delivering high sound quality

Despite its reliance on outdated technology, Terratec's EWS64 still manages to retain its reputation as being one of the best soundcards available for high-quality PC sound, so much so that Terratec are still releasing new variants, brushing aside the inadequacies of the ISA bus. But Terratec have also been quietly beavering away on something a bit new and more than a bit special: the EWS88MT.

As many a PC-based musician will testify, one of the biggest downsides of using their computer for producing music is the lack of choice when it comes to audio I/O options. Of course, there's plenty of cards with onboard synths, game compatibility, surround sound and the like, and there are multi-channel audio I/O boards available, but the former rarely deliver professional sound quality, and the latter can be prohibitively expensive. But not any more.

Overview

The EWS88MT package comprises three main parts: a standard PCI expansion card, the 88AX module (a breakout box that can be mounted either externally or internally in a standard 5 3/4" drive bay), and the Control Panel software, which ties the system together to make it all work. Coaxial S/PDIF sockets and a mini-jack monitor output are located on the card's mounting plate next to a large multi-pin connector for linking it to the 88AX.

To cater for internal mounting, a second connector is supplied on the board itself. Also supplied onboard are a pair of electronically-separated CD audio connectors and a pair of inconspicuous 3-pin connectors. These

are used to synchronise up to four EWS88MTs together in one PC – nice! Analogue connections are made via the 88AX breakout box. Eight inputs and eight outputs are provided on RCA jacks alongside a pair of MIDI connectors. The 88AX also takes care of all the A-D and D-A conversion, and can give up to 96kHz sample frequency and 24-bit resolution.

On the software side of things, a driver is provided for each pair of ins and outs (including the S/PDIF). This gives a total of 10 input channels and 10 playback channels, which can be simultaneously routed in various ways to any of the 10 outputs within the control panel software. So that's a total of 20 channels available at mixdown and up to 80 channels if you have a full complement of four EWS88MTs installed. Currently drivers are provided for Windows 95, 98 and NT 4.0 but Mac users needn't stop reading now – Mac drivers are currently under development. Dedicated ASIO drivers are also included for seamless integration with Cubase VST and the like.

In use

Our test system was a Pentium II 266 with 128MB RAM and Windows 98. It was also fitted with a Creative SoundBlaster Live soundcard, with the S/PDIF output looped back to the EWS88MT's S/PDIF input.

Unlike its predecessor, the EWS64, the '88 is a doddle to install. Fit the card in a spare PCI slot, connect the 88AX module and any audio connections, power up and let Windows do the rest. Because it has been designed

words **Adam Crute** images **Gavin Roberts**

For professional sound quality at this price, you'll be hard-pressed to beat the EWS88MT!



Aaah... break out!
The 88AX features analogue and MIDI I/O



purely as an audio I/O solution, the EWS88MT has no sound generation capabilities of its own, so no onboard synthesizer or game sound.

This shouldn't pose any problems, as the card is designed to work happily alongside other, more traditional soundcards. If you only want onboard sound for Windows system sounds, the EWS88MT can play these via its Monitor WavePlay driver and monitor output. Despite only using a mini-jack connector, the monitor output doesn't let the rest of the '88 down on quality, thanks to its own separate 18-bit D-A converter.

The monitor output can also be used as a separate output for any wave editors or soft synths you may be using, with the latter benefiting from the extremely fast DirectSound part of the monitor driver. Unlike the rest of the EWS88MT, the monitor output is controlled by the standard Windows mixer control, and not the EWS88MT control panel.

At the heart of the EWS88MT is the control panel. This is split into three distinct parts: input levels and routing, the Digital Mixer, and the Settings panel. The first of these provides a set of faders, organised in pairs, to control the level of each of the 88AX's

analogue inputs. It's possible to select between +4dBu and -10dBv for each input, ensuring maximum compatibility with your audio devices. A drop-down menu also allows you to set the level at which the input meters will register clipping.

To the left of the input level controls are the routing options, and each pair of outputs can have a different source applied to it. You can choose from any of the WavePlay outputs, any pair of inputs, or the clever bit, the Digital Mixer. The Digital Mixer is split into a Wave window and an Input window, and across these two windows a fader is provided for each of the EWS88MT's 20 available channels. These can then be mixed together, the master level set, and then routed to any output pair. We'll look more at the implications of this in a moment.

The final part of the control panel is the Settings window. This is where the properties of the EWS88MT, such as sample rate, analogue output-levels and ASIO memory buffer size are controlled. Each full Control Panel set-up can be stored as a scene for quick recall.

One of the most frustrating things about using a PC as a music production platform is that

Software

As well as the excellent Control Panel software, the EWS88MT also comes with:

The Media Player

As with all soundcards, the EWS88MT comes with its own proprietary media player. It can play all the different MPEG format files (MP1, MP2 and MP3), WAV and VOC files and, of course, CD audio. The Media Player can also handle MIDI files as well as all the common types of tracker file (MOD, S3M, XM and IT). To top it all off, it also supports so-called 'skins', which allow you to customise how it looks.

EMagic Micrologic AV

All soundcards come with a sequencer package of some sort or other. Terratec have plumped for EMagic's Micrologic AV. Although a lot of Logic's power features are missing, it is still a very potent MIDI and audio sequencer which, amongst other things, offers full support of 24-bit 96kHz recording, effects and real-time control.

Samplitude Basic

Samplitude Basic by SEK'D is a dedicated audio editing suite. As with Micrologic, it supports full 24-bit, 96kHz digital audio, yet unlike Micrologic, it also offers a host of features geared towards pure audio editing. Practically every function you could possibly need is included for manipulating your sound files.

Buzz

This is a freeware tracker program. What? Freeware? With a professional soundcard? As it happens, Buzz is one of the best trackers available. Using it, you can re-live the early days of computer-based music yet still have the most modern and optimal code for use under Windows. Check Buzz out - you may be rather surprised at what it can do.

Hotstuff

A folder containing all sorts of useful gubbins: desktop wallpapers, soundfonts and a huge slab of shareware music software. There isn't a single program on there that won't come in useful at some time or other.

specifications

Analogue I/O

8-in 8-out, RCA

Monitor output

18-bit D/A converter

Digital I/O

Coaxial S/PDIF

A/D conversion

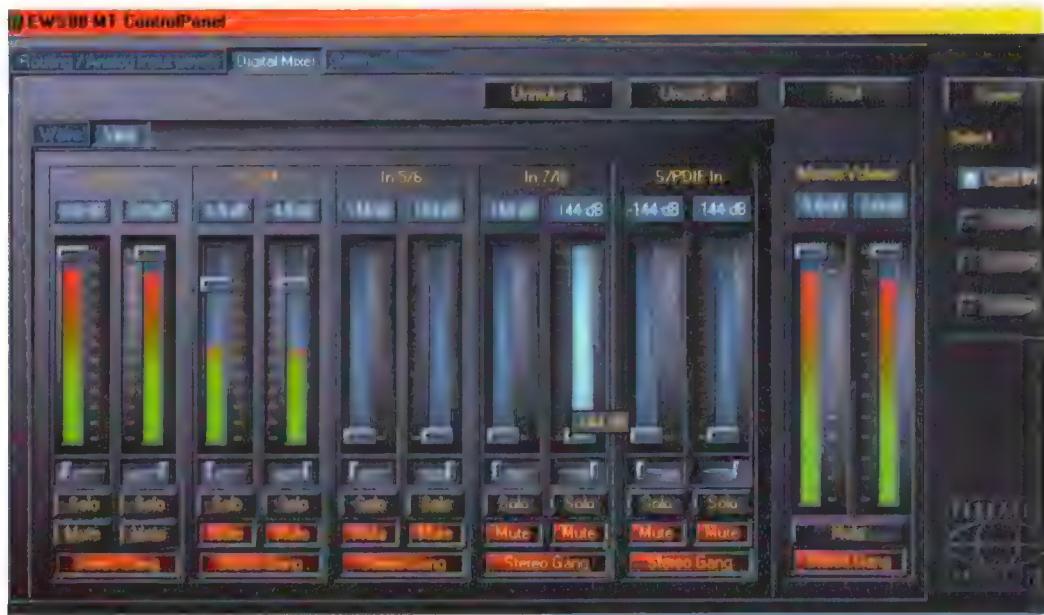
Up to 96kHz, 24-bit

MIDI

Standard 5-pin DIN, I/O

system requirements

- ① Pentium 200MHz or faster
- ② Windows 95, 98 or NT4
- ③ 32 Mb RAM
- ④ AGP graphics card



The Digital Mixer allows you to mix the input and playback channels simultaneously into a stereo pair

conventional soundcards simply don't work in a way that is familiar to anyone who is used to working on a tape-based system. With tape, an input feeds a track, and the track feeds back to the coinciding output. It is testament to the flexibility and power of the Control Panel that this mode of operation is as easy to achieve with the EWS88MT as it is hard to achieve on conventional cards – even amongst those that offer multi-channel breakout boxes.

But where the control panel really comes into its own is when using the Digital Mixer. As already mentioned, this allows you to mix the input channels and playback channels simultaneously into a stereo pair that can then be fed to any (or all) of the outputs. It also means that if you don't have any digital audio devices to connect to your PC, you don't end up losing the extra two channels of playback that the S/PDIF WavePlay driver provides – the S/PDIF input and wave playback can be mixed in with the other sound sources and routed to an analogue output.

Sadly, the Digital Mixer doesn't feature any automation or plug-in effects capability, but Terratec do

have some 'professional upgrades' planned and with any luck this could well be one of them – although they are currently keeping their plans very much under wraps.

Verdict

Although the EWS88MT is radically different from its predecessor, the EWS64, there is one common thread that runs between the two: sound quality. The latter was famed for it and the former looks set to follow in the same footsteps. The most immediate demonstration of this is to compare the analogue output of the SoundBlaster with the same signal routed digitally through the EWS88MT. Although the difference was undeniably subtle, it was still plainly apparent. In fact, the audio performance of the '88 is faultless in every respect.

Also worthy of special praise are the drivers and Control Panel software. The drivers are stable and reliable – which is something that should not be taken as read – and the Control Panel is easy and intuitive to use, yet phenomenally flexible to boot. The use of phono connectors for the analogue inputs, while meaning there is no provision for balanced signals, does mean that the EWS88MT will integrate easily into an existing tape-based set-up.

Power such as this normally weighs in with a hefty pricetag, but not the EWS88MT. At £399 it isn't exactly pocket money, but it's still significantly less expensive than comparable devices such as the Aardvark 20/20 (£775). The Terratec AudioSystem EWS88MT is a very, very good audio card and you'd be hard-pressed to find anything that offers the same features and quality at anything near this price.

More from: Digiteq Ltd, PO Box 23430, London, SE26 5WZ Tel: 0870 901 0021 Fax: 0870 901 6832 Web: www.terratec.net

Here's the 8BAX's input level and routing controls



TC ICON

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Focusrite ISA430

Producer Pack channel strip

Price £2,345 **Optional** digital board £294

For Sounds fantastic **Optional** Extensive routing options

Optional Good price, considering what's included

Against The A/D could come as standard

Verdict The best-sounding and most flexible rack channel strip on the market

In the rush to produce the ultimate channel strip for the project studio or computer owner, high-end users could justifiably feel hard done-by. The last couple of years have seen an increasing number of all-singing, all-dancing preamps combining EQ, compression, expansion and so on, but generally aimed at the budget end of the market.

By contrast, manufacturers have been slower to develop top-flight designs with a similar level of facilities, although there have been a few exceptions. For example, the Drawmer 1962 mic pre heralded a move towards mic preamps incorporating A/D conversion at the output stage. On the other hand, TC's approach with the Gold Channel was to incorporate A/D conversion at the input stage, allowing processing in the digital domain prior to connection to a digital recorder. But with many engineers now recording direct to hard disk, you'd have thought that more manufacturers would be designing rack mounted channel strips with them in mind.

For Focusrite it's quite possible that the success of their Platinum and Green channel strips amongst high-end users as well as project users could have triggered the decision to combine elements of their much-respected ISA range into one unit. But of course, ISA models have always come with a hefty price tag, so it's good to see this high end unit coming in at around two-and-a-half grand.

Overview

Neatly titled the Producer Pack, the ISA 430 is a mono channel strip combining a mixture of existing and new circuit designs packaged into one box. As the ISA name implies, it draws heavily on the Rupert Neve designs of that range, but with some new upgrades. The processing available includes parametric EQ, compression, expansion, gating, de-essing and limiting.



In addition to the usual mic and line level inputs, there is a high-impedance instrument input, which is a nice touch. To add to the flexibility, internal routing allows each section of the EQ to key both the compressor and gate, and a quick look at the back shows just about every conceivable connector, including an option for linking the dynamics section of two units. The only optional extra is the 24-bit, 96 kHz stereo A/D output card, which will set you back a further £294, and provide you with AES, S/PDIF and optical outputs, plus a few stereo facilities (more on these later).

Detail

Given the number of features offered by the Producer Pack, it comes as no surprise that the front panel is crammed with controls, but what may come as a shock is how heavy it is (8.35kg). Visually, the ISA 430 has to be the busiest of any Focusrite unit, but it still remains clear and ergonomic. The left-hand end of the unit deals with metering, input levels and general selection of routing, with processing spread out over the rest of the front panel. The top row of the 430 is the EQ section (filters, two-band parametric and two-band shelving), while the bottom row has the compressor, gate/expander, de-esser and output level.

One additional feature is the external level control, which allows an additional external signal to be blended at the output with the internal signal. Although useful, this option becomes a lot more flexible once the digital board is fitted, as the A/D converter is stereo, and thus allows a variety of options, including A/D conversion of a stereo signal.

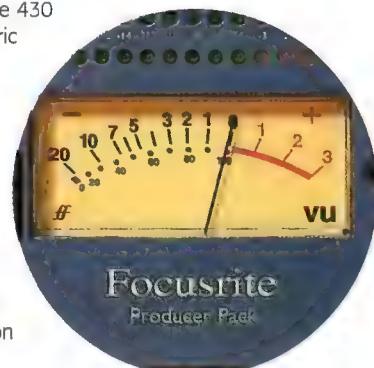
A quick look at the spec of the 430 indicates many similarities with the other ISA units. The mic



CD info

track 05

Bass, guitar, drums and synths get an ISA-style seeing-to...



Focusrite
Producer Pack

Keeping it real

The best-sounding EQ and compression designs are still analogue...

words **Jon Musgrave** images **Katherine Lane-Sims**

Focusrite have combined elements of their much-respected ISA range into one great-sounding unit



input stage is the same transformer-based design found in the ISA 110 and ISA 215 units, and a post mic amp output is available for the cleanest possible signal path. Also similar is the stepped mic and line gains with the additional trim pot for fine adjustment. The majority of the buttons are back-lit and either red, green or yellow, thus making the busy surface easier to decipher. The 430 also employs a new-style button that is less fiddly than the latching type found on older ISA models.

The EQ itself is exactly the same as that on the ISA 215, but incorporates routing switches for keying the dynamics. The filters are 18dB per octave high and low-pass with an overlap between 400Hz and 1.6kHz, thus allowing a specific frequency for keying either the compressor or gate. The 2-band parametric incorporates a twin-range for each band, accessed by pressing the x3 button. Although not marked on the scale, the boost and cut available is in the region of ± 18 dB, but is slightly frequency-dependent. As you would expect, there is variable Q, and the facility to switch the whole parametric section into the sidechain of the dynamics modules.

The high and low shelving EQs offer a similar level of gain as the parametric, but not at continuously variable frequencies. They are limited to six specific frequencies each and, like the other sections, can be switched to key the dynamics.

Moving on to the dynamics section, some of the 430's flexibility becomes apparent. The dynamics can be switched to pre-EQ from their normal post-EQ position, or alternatively split from the rest of the channel path and run as a discrete signal path accessed via the insert connectors on the back of the unit. Incidentally, the insert point can also be set pre, mid or post-processing, with an insert return option on the VU meter as well. So, if necessary, you could compress, gate and de-ess one signal while applying EQ to another.

Family tree

The dynamics section's heritage again lies in an earlier ISA unit (in this case the 130 compressor), but although the sidechain circuit is the same, both the compressor and gate incorporate an upgraded Class A VCA, with lower distortion and noise.

One useful option is the listen function, both on the compressor and gate/expander, which allows you to monitor the sidechain signal for easy set-up. The gate can act as an expander with ratio of 5:1 if desired, and also incorporates a hysteresis option to improve the gate's response to signals with long modulating decays. Both the compressor and gate can be keyed by an external source accessed via two balanced jacks on the back panel.

The final module in the dynamics section is the

specifications

Mic/line input
Balanced XLR

Instrument input
Unbalanced mono jack

Compressor:

Threshold
-28dB-12dB

Ratio
1.5:1-10:1

Attack
500µs-25ms

Release
100ms-4s, auto option

De-esser:

Threshold range
22dB

Frequency range
2.2kHz-9.2 kHz

Weight
8.35 kg

Size
2U rackmount

Neve Legacy

The 430 draws heavily on Focusrite's ISA (input signal amplifier) products. The circuitry behind this range began life in the designs Rupert Neve made for George Martin's Air studios in the mid 1980s, and was consolidated by the design of the ISA 110. This became the input and EQ stage of the acclaimed Focusrite console, one of which resides at Master Rock Studios, London.

The ISA 110 mic amp design itself exhibits an extended frequency response up to 150kHz (where it measures -5 dB) and also has a resonant peak at 65kHz. Hardly surprisingly, these circuits were designed by ear. Furthermore, unlike many of today's transformerless designs, the 430 still employs the transformer-coupled design of the ISA 110, adding both electrical isolation and the characteristic Focusrite sound.

The dynamics design of the ISA 110 has also been incorporated in the 430, but Focusrite's design guru Trevor Stride has made use of an upgraded version of their proprietary Class A VCA. This offers lower distortion and better noise performance whilst retaining the same response characteristics of the original.

Another new bit of circuit design in the 430 is the de-esser. This is new from the ground up, and incorporates an optical design combining threshold dependent EQ and phase cancellation. The results are far less intrusive than compressor-based designs.

One final new bit of circuitry is the limiter. In a design similar to those found in mastering processors such as TC's Finalizer, the 430's limiter is a multi-band affair, splitting the signal into three bands. This achieves a natural-sounding result.

de-esser, which uses a new design based on threshold-dependent EQ and phase cancellation. The frequency is continuously variable from 2.2kHz-9.2kHz, and a sidechain listen option is also available. At the output stage of the unit, after the output level control, there is a brick wall limiter, essentially there as a fail-safe for those using the A-D converters, and this is switched in with the Limit In button. To achieve the most natural sound, the limiter is a multiband design with slow, fast and very fast attack times for low, middle and high frequencies respectively.

As mentioned earlier, the addition of the digital board adds some rather interesting facilities to the 430. Four sampling frequencies (44.1, 48, 88.2, and 96kHz) are available, as are 16, 20 and 24-bit operation, with clocking via word clock, super clock or internally.

But what makes this card interesting is the fact that it's stereo. Although the 430 is a mono unit, various connectors on the back allow you to take advantage of the stereo converter. So you could use the A-D to convert your stereo mix signal, and at the same time use the main channel EQ for one signal, and with split selected, use the dynamics section via the inserts for another signal. This is because one side of the A-D converter is always fed the channel output signal unless another signal accesses it via the balanced jack on the back panel, while the other side of the converter is always accessible from its own XLR connector on the back panel. As you can imagine, this opens up quite a number of routing options. For example, if you wished to process a stereo signal via two ISA430s, and then convert it to a digital signal, you would only need one digital board, as the second 430 could use the spare side of the first's A-D as a converter.

In use

As you'd expect from Focusrite gear, the quality is impeccable, and trying an A/B comparison between the 430 and a standard desk mic amp demonstrates why these designs have been so popular. As mentioned earlier, there are two output points available, with one straight after the mic pre. It has to be said these sound pretty much the same, but it is nice to have the option, and does leave the rest of the unit free to process another signal.

The EQ sounds fantastic and very musical, as existing Focusrite users will already know, although the choice of only fixed frequencies on the shelving EQs can be a little annoying. The compressor is very much in the

soft-knee camp, but can be made quite audible if so desired. Plus, a quick press of the meter selector turns the VU into gain reduction meter. However, it would have been nice to see a maximum ratio greater than 10:1. Still, the listen function proved very useful, especially when setting up the compressor to squash a kick drum with the filters as the sidechain. The gate/expander functioned much as you would expect, and again the key listen function proved invaluable.

If anything, the greatest revelation in the 430 is the de-esser. Although not capable of being really brutal, it proved very useful in subtly controlling sibilance and other sounds within its frequency band.

Once familiar with the layout, the concept of having all these top Focusrite designs in one

box really comes into its own. The bottom line is convenience. Quite often, speed is of the essence when setting up a recording session, and what this allows you to do is get perfect results without darting round the studio from one bit of gear to another. What's more, the potential for a dodgy lead to spoil things is seriously reduced too. If you have a specific compressor or EQ they always use, the insert points are there if you want. But really, once you get into the sound of the 430 there seems little point in compromising the signal by sending it anywhere else.

Verdict

At last, a manufacturer has put together a rack

channel strip that really has no compromises, incorporating the best of the old and the new. What's more, they've done it at a price which, although expensive, is very reasonable considering what you get, and whips the competition in terms of facilities.

Okay, it would have been nice to have the A/D converter as a standard feature, given that you can use it as a standalone stereo converter if you want, and the sheer quantity of controls on the front panel can make it look slightly busy. However, the best sounding EQ and compression designs are still analogue, and there would currently seem no better way to get a signal to tape or hard disk than via the ISA 430. What's more, hats off to Focusrite for realising the full potential of the 430's internal routing and digital board. They may have just created yet another modern classic.

More from: Focusrite, 19 Lincoln Road, Cresssex Business Park, High Wycombe, Bucks
Tel: 01494 462246 Fax: 01494 459920
Web: www.focusrite.com



Just about every conceivable connector is present on the ISA430, including an option for linking the dynamics sections of two units.



With all those processes in one box, the 430's front panel is understandably busy, but is still clear and easy to navigate.



Sonic Foundry Vegas Pro

PC audio and media editing/production package

Price £399

- For** Unique software multitracker
- Unlimited tracks
- Plays most audio formats simultaneously
- Super-fast coding
- Against** Confusing zoom facility
- A bit pricey

Verdict Outstanding new multimedia product, given that the market is moving that way

Most of you have heard of Sonic Foundry by now, what with them being one of the most successful audio software writers for Windows and all. Well, after a few months of public beta-version releases, an ideal way for a preview, comes the final release of Vegas Pro – and no, all you gambling-heads, it's not a new technique for playing Blackjack or how to win at the slots. With highly-respected programs like Sound Forge and Acid becoming industry standards, Vegas Pro is essentially the next progression of their audio handling software.

Vegas Pro is a multi-track audio/media editing package. There are many similar programs available that can edit and run multiple tracks of audio. But how many can run tracks of audio at different sampling rates? And how many have unlimited – yes, unlimited – tracks, as well as the usual non-destructive editing and real-time effects?

Overview

Vegas has been developed with power and speed, fuelled by clever coding to obtain incredible real-time performance from a PC. Coming, as all Sonic Foundry's products do, in an over-the-top-sized box, a slim CD-ROM and well-written manual are supplied.

Installation is a breeze, but wait... the protection scheme is a register-or-else affair. After first booting up and entering the serial number given, you get a week to register before it will time-out. To avoid this 'seven-day-meltdown', a unique code produced by your computer and Vegas, issued during installation, must be sent to the online registration. This does work more or less instantly with an activation number being returned by email, so if you haven't got net access, you'll have to call Sonic Foundry – stateside – to get the activation code.

The look is decidedly Acid-style, with a split screen showing the main track view above windows of a Media Explorer, Trim Editor, Edit Detail List, Video Preview and Master and Aux outputs. All of these windows can be resized and undocked for placement anywhere on your desktop, but anyone worried about

fitting all that onto one screen will be pleased to know Vegas features dual-monitor support. Audio media can be found in the explorer and drag-and-dropped into place, but there's one main advantage here – it can deal with more or less any audio file. This means WAV, AIFF or MP3, and it can also manage multiple bit-depths and sample rates, so it doesn't even matter if it's 48/44.1kHz, or even 12-bit. Any of you who have spent time resampling and converting file formats knows what a time-saver this is.

The Time Ruler displays various frame rates or bars and beats, but there's no real tempo map, so it's down to you to have the audio matched at the right speed. Tracks can be routed to up to 32 DirectX effects sends, that can be added or deleted in a graphical chain. Linking up with video is done via a frame-display track

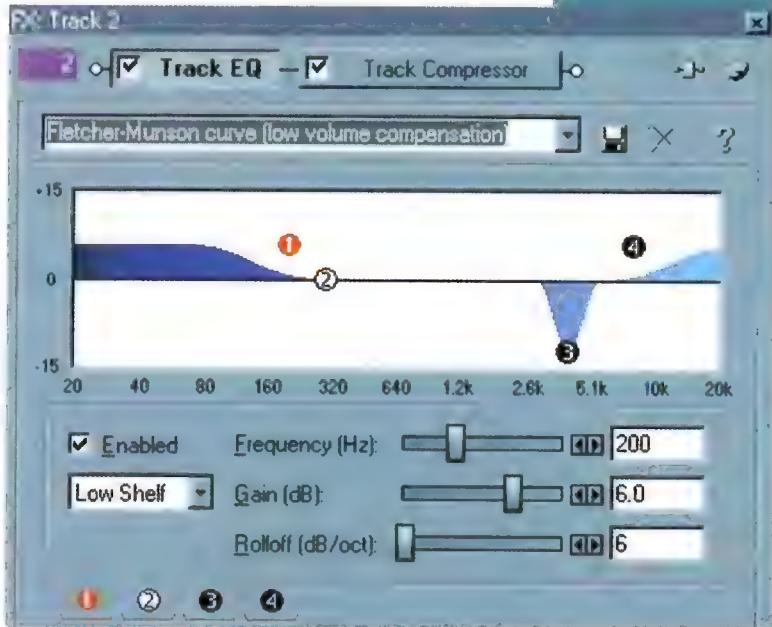
words

Alan Branch

CD info

track 01
Try out all the features of Vegas for yourself – it's free for a week

Each track has its own compressor and EQ fitted, which work without taxing the CPU too much

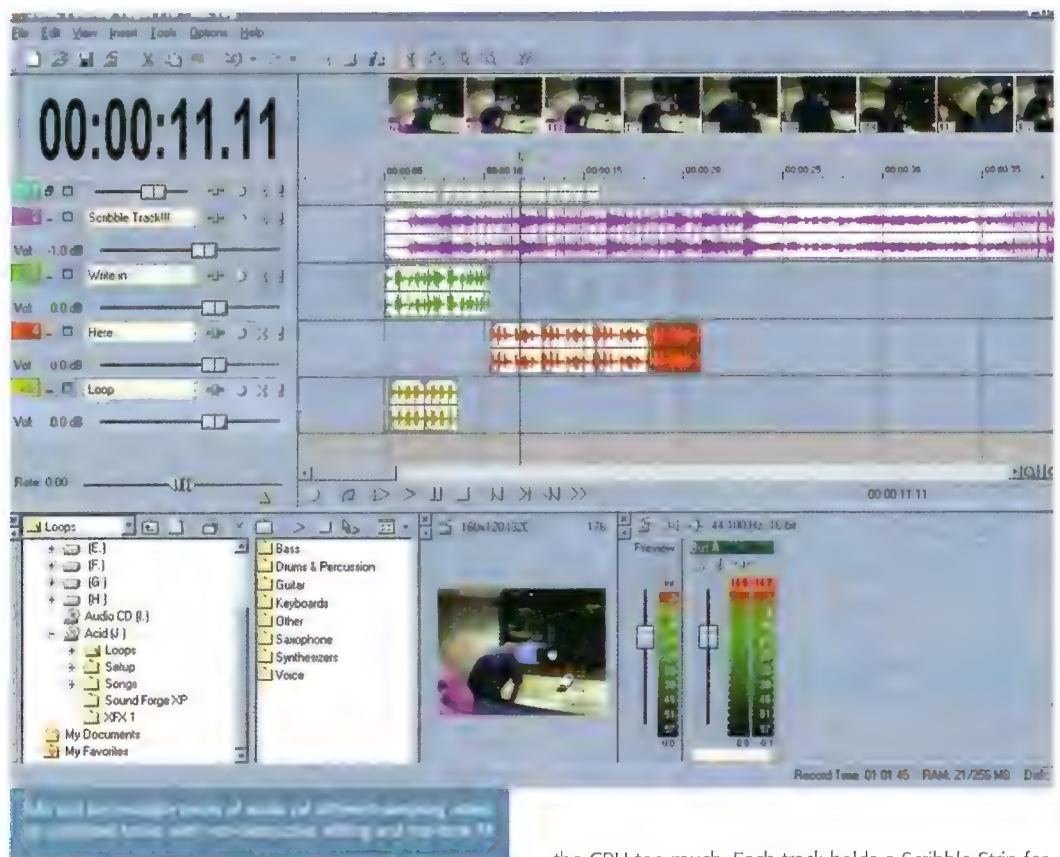


system requirements

Windows 9x or NT 4.0
Windows-compatible soundcard
200 MHz processor (400MHz recommended)
VGA display (24-bit colour display recommended)
32Mb RAM (128 Mb recommended)

features

- ① Up to 24-bit/96kHz
- ① Unlimited tracks
- ① Non-destructive editing
- ① Supports multiple file formats/bit depths/sample rates
- ① 32 assignable DirectX FX sends
- ① Simultaneous multitrack record and playback
- ① EQ and compressor inserts on every channel
- ① Imports/supports WAV, AIF, AVI, MOV, MPG and BMP formats
- ① Exports/saves WAV, AIF, AVI, WMA, ASF, RM and MP3 (optional)



» above the Time Ruler while any images run in the video preview window. The multi-format features don't stop there, though. Metadata can be incorporated along the Time Ruler, and gives support for markers and captions on your internet homepage setup, so images and audio appear in sync.

In use

Amongst our various sessions using a PII 400MHz, Vegas never once fell down, even running 30 tracks and effects. Recording can be done with multiple takes on a single track, with comprehensive routing to busses or outputs and support for multiple I/O cards – the mixdown possibilities are where Vegas comes into its own. And once under way Vegas, proved very inspiring because of its speed, and the multiple undo/undos are not only useful, but essential in this day and age.

Even better, there's a full history list to go back and change things, should the need arise. Tracks and events can be pitched, while markers can be put in while playing and named for structuring the song. The audio editing is a bit basic, but it's easy to set up a link to Sound Forge or similar for more complex editing. As Vegas uses MME drivers there's some latency, which can be a bit of a problem if you haven't got a soundcard with direct monitoring capabilities, so we just monitored any signals being recorded via the desk during the session.

Each track has its own compressor and EQ, and these come up in a floating window with easy selection for either graphical or numerical adjustment – both of these work admirably, and best of all, without taxing

the CPU too much. Each track holds a Scribble Strip for naming and a nice colour for easy-to-see waveforms. A neat feature is the Tracks Maximise and Minimise buttons. These resize the tracks with ease, although they can also be resized by dragging. If anything, the zoom function was a bit confusing, zooming the waveform to give a clipped appearance, rather than zooming the whole arrange page.

Verdict

Vegas Pro is RAM-dependent, and fortunately we had 256Mb in our PC. With multi-processor, as well as multi-monitor support it looks and sounds very professional. A lot of optimisation helps it to run smoothly, and with 24-bit/96kHz support and unlimited tracks, it's only limited by your computing power. The different save options take Vegas to a multimedia market, and with the video capability and the ability to transmit or receive MIDI timecode, there's potential for a wide variety of applications, from audio/visual broadcast to internet formats.

If you want to record audio with lots of possibilities and ease of use, then Vegas Pro is for you. Remember this is the first version and it's certainly got some serious backing behind it. The price, however, may limit sales, but comparisons to other systems are a bit tricky as there's little else like it – so far, Vegas stands alone. So a thumbs up to Sonic Foundry, for what looks like another winner. So we'll finish by quoting Elvis circa '63: 'Viva Las Vegas!'

More from: SCV, 6-24 Southgate Road, London, N1 3JJ Tel: 0171 923 1892 Fax: 0171 241 3644 Web: www.scvlondon.co.uk

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Digigram VXpocket

Laptop audio card

Price £511

For Easy to use  Excellent sound quality

Against Fragile card connection  No extra direct sound drivers as yet

Verdict Finally, a Powerbook audio card – a must for any laptop musician

From the beginning of the '80s when an 8-note polyphonic Fairlight with a second and a half of sampling time cost around 50 grand, the electronic musician's dream of 'having it all in one box' has slowly been realised – and in a somewhat smaller box than the steamer trunk sized Fairlight! And over the last couple of years, even the diminutive laptop has become increasingly capable of running most audio recording software packages.

But if you've ever used a laptop for any serious audio projects, you'll know it's been a even longer wait for any decent audio connections. Finally, it seems that thanks to Digigram's VXpocket, that long wait is over. This little card could transform your laptop into a fully professional workstation. Ever wanted to use your Powerbook as a mastering facility? Ever fancied actually mixing your album on the beach in Ibiza? Well now, at last, you can. The VXpocket is available for Mac and PC; we tested it on a Mac.

Overview

Up 'til now, laptops have been sorely lacking in the old ins-and-outs department, and although lots of you will rely on your Powerbooks the standard mini-jack output left a lot to the imagination. And as for any digital input, well, running optical from a DAT through an Akai S3000, then SCSI into the Mac was always a rather novel solution.

So when Digigram released the VX-Pocket card a couple of months ago, we were first in line to buy one (although Tim Bran from Dreadzone/Res Rocket just beat us to it!). So, equipped with an Apple G3 laptop (did we mention one of them already?), a pair of powered Genelecs, a Panasonic DAT machine and a shiny new 8-speed CD burner, we put the little card through its paces.

Installation couldn't be simpler. With a CD installer for the Sound Manager driver, you simply connect the PC card to the cable provided and insert into any available expansion slot. The cable ends with two balanced analogue mono outputs, two balanced analogue mono inputs, female/male XLRs, and two digital S/PDIF stereo in/outs. It supports a full sampling range, ranging from 8-48kHz. PCM encoding/decoding rates are 8, 16, or 24-bits and the analogue inputs/outputs can be configured as one stereo or two mono channels.

At the moment there are no direct sound drivers – you just select the card in the Apple sound control panel – but check the website (www.digigram.com) for updates. We did, and found a more up-to-date version of the driver than the one that was provided on the installer CD. On the computer side of things, your system requirements are Apple MacOS 8.1 or higher, Apple Sound Manager 3.3 or higher, and most importantly, a PC-Card interface 3.0 or higher (these are found on Apple's Powerbook 2400, 3400 and G3).

In use

We hooked the analogue outputs up to the monitors, then connected both S/PDIFs and the analogue inputs to the DAT and used a favourite sound application to transfer a mix from DAT digitally via the soundcard. Then, for the sake of it, we recorded the signal via the analogue outs back onto the DAT recorder with perfect results.

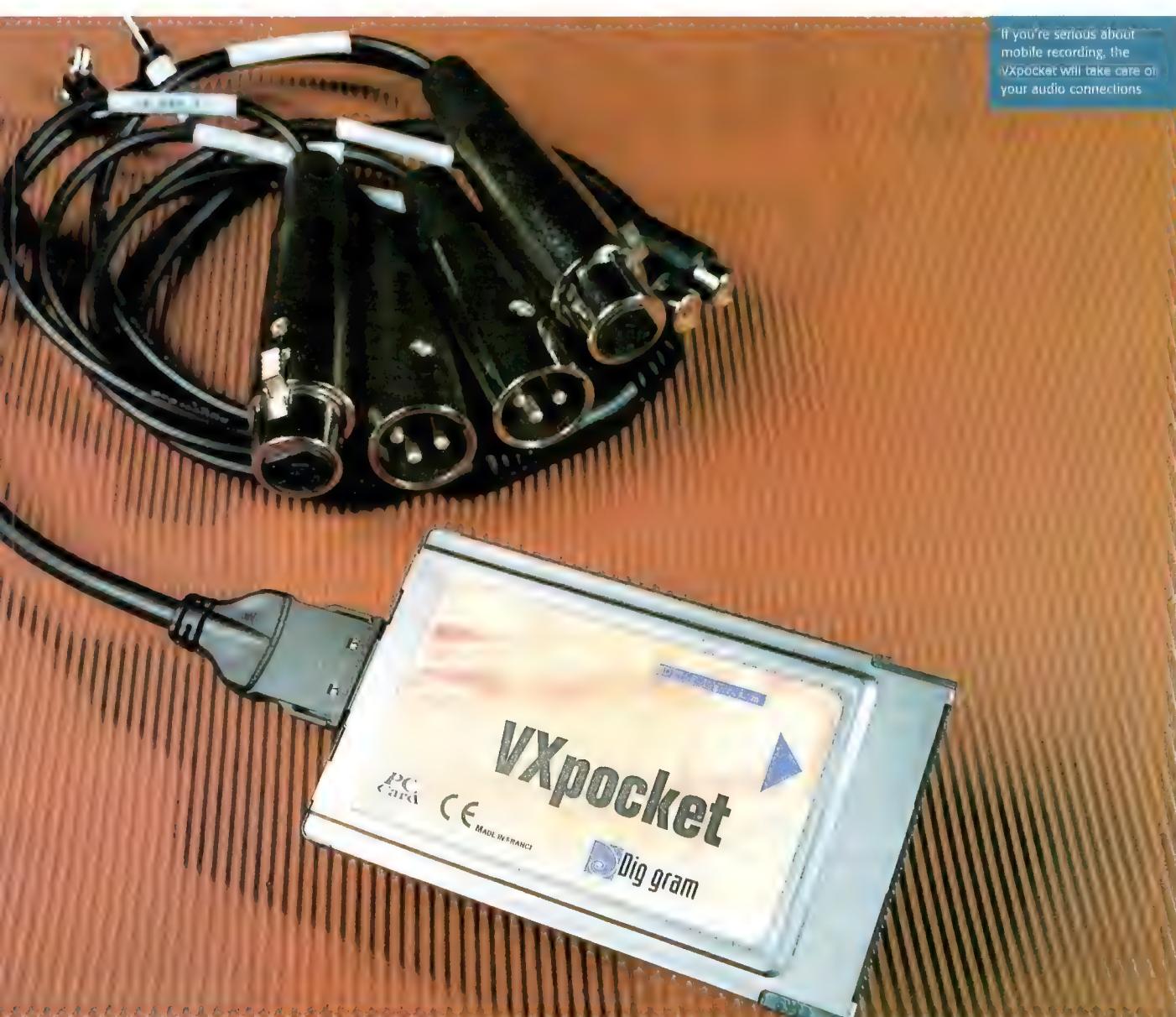
Later that night we took both card and laptop to our bass player's house, plugged the audio outs into his domestic hi-fi and the XLR output from his acoustic double bass into the Powerbook running Cubase, then proceeded to record most of the bass tracks for the next James Hardway album. What could be more convenient?



features

-  Balanced Analogue I/O XLR – mic/line
-  Stereo S/PDIF I/O
-  24-bit converters
-  Full duplex

words **David Harrow** images **Gavin Roberts**



The third test took place on home turf, and with the VX-Pocket this time attached to a pair of Dynaudio Acoustics we checked back the previous night's session. Full frequency-response, full low-end, very clear mids, a crystal high-end, and after A/B comparisons, testing the same mix from a few different sources, it was difficult to say which was which. And let's face it, that's the most important test of all.

Update

Digigram sent over the first ASIO driver for Cubase, and the website now includes a download page of drivers for Windows 9X/NT/3.1X/DOS as well. The Mac version is now up to V.224, which includes the Sound Manager and ASIO drivers. Just install and drop into your Cubase driver folder, then select the appropriate ASIO from your audio system section. This gives you the option of direct outputs for your audio application while leaving the rest for your Apple sound manager

deal with Cubase. After a week's full use with the new driver there are no significant flaws to report. It seems very stable and more importantly no extra loss of CPU power in Cubase itself.

Verdict

This card really can't be faulted in any way for its ease of use and overall sound quality. Add to that the fact that it's the only laptop audio card on the market and this is beginning to look like a one-horse race. If there's anything to nit-pick over, it would have to be the long-term durability of the card/cable connection, but that's the same with every type of slot card around. Apart from that, this card is an absolute must for any type of serious mobile recording person.

system requirements

PC

- Any Pentium
- Windows 95 & 98 only

Mac

- 2400 or higher
- MacOS 8.6 recommended, but will run on 8.0
- Apple Sound Manager 3.3 or higher

More from: SCV London, 6-24 Southgate Road, London N1 3JJ Tel: 0171 923 1892 Fax: 0171 241 3644 Web: www.scvlondon.co.uk

TL Audio VTC

Valve mixer

Prices from £16,445 (see box on page 45)

For Sounds fantastic **Against** Built like a tank **In a class of its own**

Against Weighs as much as a tank

Verdict A unique product that's here to satisfy a demand for quality, as well as nostalgia

The mixer market in 1999 is dominated by new, digital consoles featuring the latest and greatest in automation and built-in dynamics and effects. Even the most die-hard purists are slowly coming round to the idea that digital is the way forward. So why have TL Audio launched an all-valve, analogue desk with no automation as standard, no effects, no software, and not a hint of an LCD anywhere?

Well, they just have, OK? It's that simple. There is a demand for the best that money can buy, and this, as far as valve technology goes, is it. Now, if you need to ask how much this beast costs, you can't afford it. It's like buying a Rolls Royce. Money can't buy another product like this anywhere. Not without restoring an old Neve desk, and seeing as David Kempson (ex-Neve project leader) designed it, you'd be better off buying a new VTC.

Overview

Essentially, the VTC is a fully modular in-line multitrack mixer that comes as an 8-buss configuration. The in-line design keeps things compact, but this is still a large-format desk. The usual TL Audio build quality is in evidence all over the desk, from the ash armrest and sides to the quality connectors on the back panel. The power supply is a 3U rack affair with a dedicated multi-pin power lead connecting it to the desk. The desk is the sleek dark blue often used by TLA with the usual ledging in white.

Along the back are the retro-style VU meters, one for each group and two for the stereo output. All are backlit and glow nicely, as do the valves located at the back of the desk. They are, however, visible from the front and accessible from the top without having to remove a channel strip. This saves unnecessary messing around should one need replacing.

The input channels are a breeze to get to grips with, and anyone will be familiar with what they see here. The most obvious feature is the 4-band valve EQ, which consists of two fully parametric mids and the usual hi/lo shelved EQ. Although not lifted directly from the EQ1 or EQ2, it's of a similar type. Likewise, the preamp stages, both mic and line, are of the best valve quality, so there's no weak link in the path to tape.

There are six mono aux sends available on each channel, as well as one dedicated stereo send. These are configured so that the 3 and 4 pots double up for 5 and 6, but are switchable. At the bottom of the strip is the 100mm fader and pan control, as well as the mute and solo switches with corresponding LEDs. The bussing buttons run next to the fader along with a button marked Auto (more on this later).

The MIXB, or monitor section, is dominated by the 60mm fader, which controls the level of either the MIXB input or the return from tape, depending on how you connect it up. The inclusion of a Flip button at the top of the strip gives the opportunity to route MIXB through the main channel. With the option of either splitting the EQ by using the hi/lo shelving or the parametric mids, this gives you twice the number of inputs at mixdown, all available with EQ and auxiliaries as you can assign two to the MIXB input.

Also on the MIXB section is a button marked SRCE-CH. This routes the signal from the main channel to the MIXB fader as well, giving you the option to set up two different mixes of the same source material. This is fed out of the MIXB outputs or can be routed to the main L+R outputs by pressing the Assign L+R switch.

Being an 8-buss desk, there are some provisions for getting a bussed signal to tracks 9 onwards on your multitrack without the need for repatching. This involves the inclusion of a Bus switch, which



words **Sean Vincent** images **Simon Dodd**





specifications

Size

16-channel:
1.18 x 0.3 x 0.975m
56-channel:
1.18 x 0.3 x 2.51m

Busses

8

Valves

1 per channel
1 per group out
1 for main outs
Dual-Triode throughout

EQ

4-band: HF centred at 12kHz; LF centred at 80Hz; both ± 15 dB

EQ sweep

Hi-Mid: 500Hz-18kHz
Lo-Mid: 50Hz-2kHz

Q

Variable from 0.8-7, with ± 15 dB cut/boost

Auxiliaries

6 mono, each with stereo return, plus 1 dedicated stereo

Channel I/O

Mic/line in, tape in, direct out and insert on each channel

assigns any signal routed to say, group 1, to also feed the tape outputs of channels 9, 17, 25 and so on. This follows suit for all the groups. If the Bus switch is not pressed, then the tape out acts as a post-fader direct out – very handy.

Master section

The pleasantly uncluttered master section consists of all the usual controls for control-room level, headphone level, stereo master output level, plus some other useful and interesting features.

The eight group faders feed the tape outputs and the group outputs to allow subgrouping and track laying with maximum flexibility. The six auxiliary returns are all stereo with dedicated 60mm faders that can double up as extra stereo inputs if required.

The illuminated source-select buttons make choosing your monitoring source a breeze and easy to see at a glance. There are two entirely separate headphone feeds, which allow you to choose which source or combination of sources you wish to monitor. The talkback switch is located next to the talkback mic input on the master panel and automatically dims the selected material when in use.

The overall feel of the master section is great. It's so spaced out and easy to understand that you wonder how so many console manufacturers get away with cramming so much into tiny spaces that require child-sized fingers to operate.

Connections

Around the back of desk are all the ins, outs and inserts. All the input channels have a balanced XLR mic input, balanced line stereo jack input, a balanced monitor return stereo jack, TRS jack insert, and a tape out/direct out, also on a balanced stereo jack.

The master section features the main stereo outs on

balanced XLRs and on unbalanced mono jacks. The two studio outputs (studio/control room) are on mono jacks and all the group outs are on balanced stereo jacks. There are two headphone stereo jack outputs which would have made more sense on the master panel or under the arm rest, but there you go.

All the aux sends are unbalanced and can be switched in or out of each channels signal path, but the returns are on balanced stereo jacks, as are the MIXB output, 2-track returns and the external input. As you can see, TL Audio have provided ins and outs for every conceivable configuration.

Also located on the back panel are meterbridge

multipin connectors that allow connection of a LED bargraph meterbridge for channel input/output metering. This is available as an option and would be a necessity for any serious tracking work.

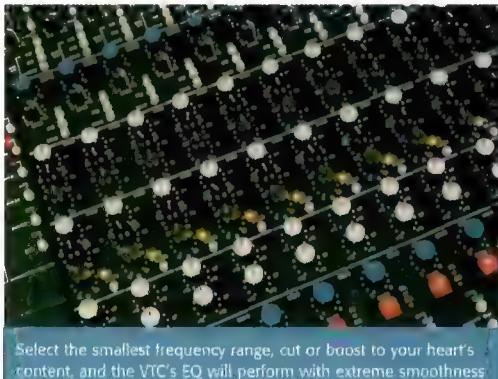
In use

First of all, we set up a CD player plugged into the first two channels panned hard left and right, and monitored some well-known source material.

The clarity of this desk is instantly apparent, as no noise was noticeable during silent sections of the music. Increasing the gain drove the valves harder, giving a warmer sound, which sounded great on guitar and bass guitar. The EQ is fantastic. You can select the smallest frequency range to cut or boost and it performs with extreme smoothness. The quality would make some desks look very sad indeed; in fact it's probably better than most outboard units as well. Another plus point is the routing, which is a doddle to get to grips with.

The real test for any desk is a full-on multitrack recording session. The VTC was put to work on such a session the day after it arrived, while it was still uncharted territory to us.

Using the eight group outs to feed an ADAT, we set about getting some sounds to tape. The kit, a



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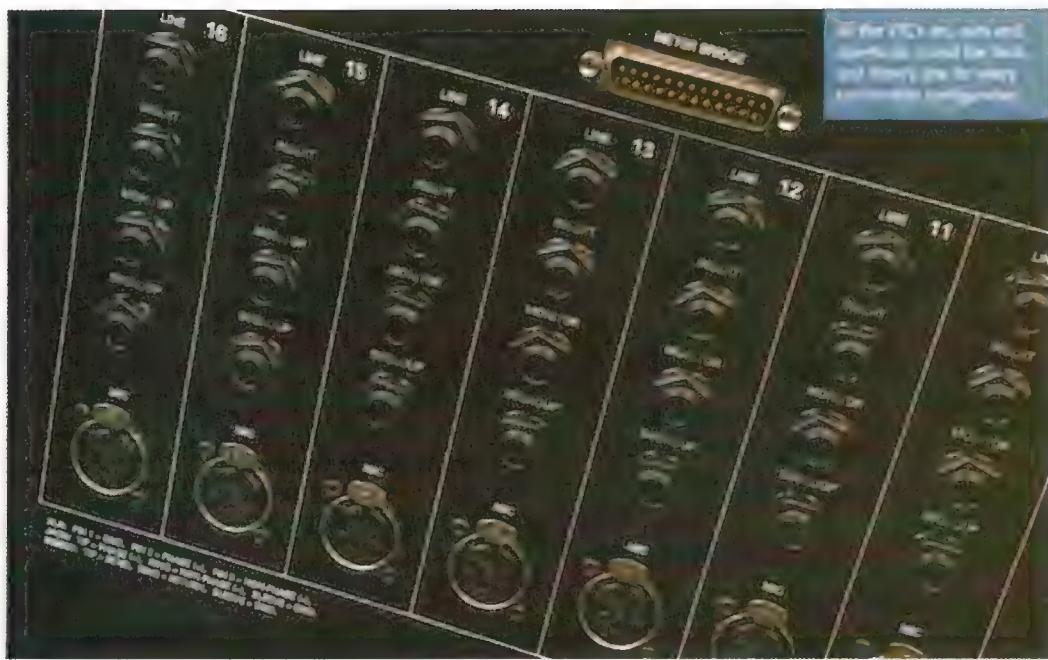
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basic kick, hat and snare was input into tracks 1, 2 and 3 respectively. The EQ made it easy to get quality sounds very quickly. The snare sound was especially easy to achieve using the valve EQ, something that can often take a lot of time and fiddling around with in the studio. The smooth top end lent an exciting but subtle edge to the hi-hat and gave it a very expensive sound.

The bass was miked up using an AKG D112 and DI'd as well. These were input into channels 4 and 5 and a satisfactory mix was achieved after a bit of playing around. The EQ was boosted slightly using the low shelving and cut at around 800Hz by about 2dB. The guitar was miked up using an SM57 and input into channel 6. This was heavily EQ'd at around the 2.5k region to cut some of the harshness from the mid and achieve a mellow laid-back sound.

Once we were happy with the sounds, channels 1, 2 and 3 were bussed to tape tracks 1, 2 and 3, while the two bass input channels were bussed to track 4, leaving the guitar to be bussed to group out 5, tape track 5.

The track was run through a few times until a good vibey take was caught, then we listened back to what we had got via the MIX B fader mix. This all went fine and presented us with no problems whatsoever. The quality of the sound that we listened back to was amazing, considering that the mics are all pretty standard and no extra outboard was used.

Next up was the vocal, which we recorded using an AKG C414 plugged straight into the desk, which seems odd as we've got used to bypassing the desk these days, usually going straight to tape via a valve mic preamp. The EQ wasn't touched for the vocal sound, but a touch of slapback echo was added in the cans mix. While we're mentioning headphones, it's good to remember that the stereo auxiliary send 7/8 is ideal to use as a headphone cue. This still leaves you with 6 aux sends, which is more than enough at the tracking stage. The vocal was recorded to track 6, with backing vocals recorded to tracks 7 and 8.

Mix time is always the proof of a desk's power, as you often need all the available inputs for aux returns, and you'll find that most of the desk's channels and returns are open, so any noise will start to become noticeable. But not in this case. The VTC seems to be a very well-refined desk in this sense. Due to the nature of valves, distortion increases with level, but this is lovely analogue valve distortion, and we're all in favour of it as it really gives a track presence without causing muddiness or fizz.

The mix was surprisingly easy, partly due to the quality recorded to tape in the first place, and partly due to the flexibility of this desk when it comes to routing. It would have to be a very special desk to outperform the VTC in this capacity.

Verdict

This is a desk for people with a passion for valve technology, or even just a passion for quality. The sceptics will say, 'I could buy a digital desk and a load of valve outboard for that!'. Maybe, but you can't replace the vibe of this desk, and the warmth it has is incredible. Using valve outboard with your digital mixer is like putting Ferrari seats in your Mondeo. It feels nice, but it's not the same as driving a Ferrari.

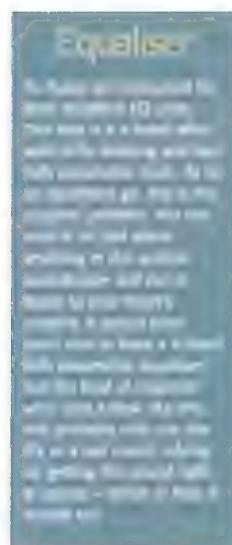
This is a fantastic desk and we would love to keep it. However, it's in high demand, with the first one already installed in UFO studios in Berlin. Blur checked this one out before we did, and in fact they have become the first people in the UK to buy a VTC, so it shows that this is going to be a popular product for those who want something a bit special. It's rare to find a product with no corners cut, no cost-saving parts, and no apparent downfall. This surely must be the only choice for anyone after the best analogue desk with valve technology.



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prices

- ① 16-channel £16,445
- ② 16-channel with patchbay and meterbridge £23,171
- ③ 56-channel £35,245
- ④ 56-channel with patchbay and meterbridge £49,462



Røde Classic II

Valve microphone

Price £1,174

For Naturally smooth sound **Against** Flexible polar pattern **Reasonably-priced**

Against Mounting difficult to tighten

Verdict A flexible, high-quality valve condenser. Røde have taken what was an excellent mic and made it even better

There were a few who were sceptical when the original Røde Classic mic appeared on the scene around three years ago. A professional, top-quality valve mic from the country who brought us Rolf Harris, Skippy the bush kangaroo and *Neighbours*? I don't think so, Bruce. Mind you, you could definitely see the Aussie design ethic in the thing – it was exactly the same shape and size as a can of lager, a tube mic in every sense. Anyway, as it turned out, the Røde Classic was exceptional, and many who bought it wouldn't give a XXXX for anything else. Cheap stereotype jibes aside, with around 4000 of the original Classics in circulation, Røde have now improved the design and released it as the Classic II.

Overview

The Classic II comes in a rather spiffing lockable aluminium attache case, which neatly stores the six separate items of valve mic paraphernalia in its shaped foam interior. The microphone itself is connected to its power supply by way of a redesigned sleek 10m multicore cable with heavily-built, locking ring-equipped connectors at either end. With its curved top surface and chicken-head style knobs, the power supply is both stylish and functional. Its four small rubber feet and substantial weight will go a long way to keeping it firmly rooted to the spot and out of harms way when in use.

All the necessary controls are located on the power supply rather than the mic's body. Of the three chicken-head knobs on the front panel, the first is a 3-position switch to bring in a high-pass filter, with a flat setting and two different slopes of bass roll-off, depending how much attenuation is necessary. In the same manner as old-style AKG valve mics, the polar pattern is switchable between nine different settings from omni through cardioid to figure of eight, allowing for some useful in-between patterns, and pad settings of -10dB and -20dB are available. The back panel houses the socket for the mic multicore cable and an XLR socket for the audio output.

There are two possible methods of fixing the mic to a stand. Gone is the support that screwed into the body of the original Classic, and provided in its place are both a stand adapter and a shock-mount suspension cradle. Both have a ring that fits over the

base of the mic body and is clamped firmly in place by tightening the threaded locking ring on the end of the multicore cable plug. The stand adapter will be useful for getting the mic into tight spaces and can swivel through 180°, but it will probably be the suspension cradle that will get the most use. Made from glass fibre reinforced nylon, it has a nice solid, unbreakable feel. Both mounts, however, once swiveled to the correct angle, do need to be tightened up considerably to support the substantial weight of the mic, and this procedure is a little awkward due to the position and size of the tightening screws handle.

The mic itself has a solid brass body coated in satin nickel with a very clean profile due to the absence of any switches. The only distinguishing mark is an inlaid gold dot that indicates the capsule's front. Two bonded layers of mesh protect the capsule and look solid enough to survive being run over by a bus.

The capsule, housed in an internal shock-mount, is a hand-assembled dual pressure gradient transducer featuring a 1" dual-diaphragm sputtered with pure gold. In an improvement over the original Classic, the Classic II's diaphragm is now edge-terminated. Bonding the connections to the edge rather than the centre allows the diaphragm to float more, enhancing frequency response, transient characteristics and SPL capability.

Røde still use the obsolescent military spec. GE6072 twin triode valve in their preamp design and apparently have a large supply of them, as each valve is hand-picked and tested with a 90% rejection rate. The output transformer is custom-designed by Jensen.

In use

After several minutes of allowing the valve to warm up before starting, the Classic II was first checked out for noise – bearing in mind that valve mics, by their very nature, are a little noisier than their solid-state counterparts. If there was any criticism to be levelled at the original Classic it was that it could be a little noisy. In response, Røde have redesigned the power supply and mic circuitry in the Classic II to improve the noise performance, which is now quoted as <22dB rather than the 32dB of the original. It must be said that the new mic did sound quiet. So far, so good.



words **Trevor Curwen** images **Gavin Roberts**



Although capable of a variety of tasks in a busy studio, a mic of this nature seems tailor-made for recording vocals, so that's the first job it was set to. With a cardioid pattern selected, the Classic II was initially used to record a male lead vocal. The sound was precise, sharp and full-bodied, with enough 'air' to make reaching for the EQ a redundant exercise. The published frequency plot for the mic shows a slight lift above 10k and the sound seemed to bear this out. There was also a natural warmth and presence in the midrange that was particularly kind to vocals.

Changing the polar pattern to omni, backing vocalists were arranged around the mic like in those old Beach Boys photos. The results were excellent once the distance for each singer from the mic was optimised for the vocal blend to work (rule of thumb: the optimum distance for the obligatory tone-deaf one in any band is in the kitchen making the tea).

Acoustic stringed instruments were next in line. On a 12-string guitar with the mic about 6" away and positioned between the soundhole and the 12th fret, the clarity was immediately apparent and the whole tonal balance of the instrument was captured effortlessly. The bass roll-off was employed here to cut out some of the guitar's boom and turning the switch produced electrical clicks through the speakers, as did turning the pad switch.

Six-string acoustics, both steel and nylon-strung, were

also checked out, and the mic was used to record the acoustic sound of a Telecaster's strings to blend in with its amplified sound. The results were impressive, with sharp detail and plenty of zing in the top end.

As a distant room mic when recording a drum kit the Classic II turned in a fine performance but, being able to handle a maximum SPL of 130dB, it was also excellent placed close in the middle of the kit and used in conjunction with a kick drum mic for a two-mic mono drum sound.

Verdict

The original Røde Classic was an exceptional mic for the money and the Classic II improves on that heritage in several areas. The new suspension mounting certainly helps to cut down any vibrational or structural-borne noise and the improved circuit design has improved the electrical noise floor. This is indeed a very versatile mic, capable of handling quite high SPL's, and with the flexibility offered by the adjustable polar pattern, is suitable for a wide range of applications. The Classic II is a fine mic for the money and a definite contender for smaller studios who can only afford to have one high-quality workhorse condenser.

specifications

Polar patterns

Omni, cardioid, figure-of-eight and 6 'in-between' patterns

Capsule

1" dual pressure gradient transducer

Frequency response

20Hz-20kHz

Noise

<22dBA

Sensitivity

13mV/Pa

Max SPL

130dB

Output impedance

250Ω

Filter

2-position high-pass

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MIDI production centre

Price £2,799

For Very intuitive **Against** Powerful features **Against** Inspires creativity

Against Difficult to get hold of

Verdict Intuitive one-stop solution for MIDI production

In October 1999, Akai announced to the world that they would no longer be manufacturing the Akai MPC3000. The 3000 was the last machine in a long line of successful collaborations between Akai and Roger Linn.

The Roger Linn name has been synonymous with drum machines for over 20 years. Prior to 1979 there had been a few rather unsuccessful attempts at 'The Drum Machine', usually funny little wooden boxes designed to sit on top of old electric organs, with half a dozen brightly coloured knobs and an annoying repertoire of delightful rhythmic accompaniments such as Bossanova, Samba and Calypso, and various other demonic interpretations of Latin beats. Strangely, these boxes have become rather collectable devices, with a musical kudos akin to the brace of porcelain flying ducks – still, kitsch is kitsch. Anyway, the very concept of a programmable device capable of sounding like a drum kit was a total revolution. Enter the LM1, the first Linn drum machine.

Linn legacy

Launched in 1979, the LM1 offered little by today's standards, but it did have 18 drum pads each with its own sound. Cymbals were not available, as the cost of RAM in those days was prohibitively high. The machine featured variable quantise rates, real-time and step recording, and pattern chaining. All of these features were revolutionary at the time and profoundly influenced music from then on. The LM1 cost \$5,000 and sold only 500 in total. Obviously, you had to be a major musician – or a hobbyist with a major bank account – to be able to afford this puppy.

However, in 1982 Roger Linn released the Linn Drum, which rectified many of the shortcomings associated with the LM1, including, as it did, cymbals

and longer sample lengths. And by unscrewing the lid one could physically remove the chips and insert new sounds – EPROM blowers were used to create your own sounds, and it featured five live drum inputs plus a tape sync I/O (old-style clocks, not your MTC so you had to run from the beginning of the tape every time you wanted to play the machine). But at \$3,000 it was considerably cheaper than the LM1, sold over 5,000 units and was considered at the time the *de facto* drum machine. As far as most people were concerned, there was only the Linn Drum.

End of an era

In 1984, Linn released the Linn 9000. This was, as before, another landmark product. No longer did users have to swap chips and blow EPROMs. This was a sampling drum machine with programmable mixing, a fully-featured MIDI sequencer with floppy disk storage, and SMPTE sync. At \$7,000 fully expanded it was again rather an expensive item to own, and although it sold well, it was dogged with technical problems and had a big question mark in regards to its reliability. Sadly missed, Linn Electronics went out of business in 1986.

Shortly after this, Roger Linn was approached by Akai to collaborate on the design of a new instrument, and in 1988 the Akai MPC60 was launched. The MPC60 was in many ways similar to the 9000 – a sampling drum machine with a MIDI sequencer built into it, and floppy disc storage. So what was different?

The MPC60 came with eight dedicated mono outputs, a left and right stereo output, mono sample input, then a separate FX send and stereo return. Add to that a Time Code I/O, two



Farewell to a classic

Get it while it lasts: Akai's MPC3000LE is the last-ever run of the 3000 series

words **Adam Fuest** images **Gavin Roberts & Katherine Lane-Sims**



foot switch sockets, and a dedicated metronome out. On the MIDI side two input ports and four output ports gave a total of 64 MIDI channels available, plus you were able to merge data from the two MIDI inputs. For triggering sounds it had 16 heavy-duty rubber pads. These pads were able to access in total 32 sounds made available in two banks of 16, and each pad was able to address more than one sound at any time. The tunings were variable, as were decay and filter. The total sampling time available was 26 seconds in a sampling format known as Enhanced 12-Bit, which was, and has remained, totally incompatible with all other samplers. But it produces the chunkiest, fattest drum sounds you have ever heard, and we don't think there is anybody out there who will dispute that.

The ultimate interface

Coupled to this was the sequencer. It was conceived as a pattern-based sequencer, giving the user 99 patterns of any length. Each pattern had 99 tracks available within it, and each track could be sent to one of the 64 MIDI channels available. Every channel had fully-

variable quantise with the ability to change gate, time, velocity, program change and so on. The ergonomic design of the MPC 60 can only be described as inspired. To the left we find the 16 drum pads and to the left of these is the hi-hat decay slider, and four buttons. The first of these is full level, the second 16 levels. These allow the user to specify, when programming, whether they require full dynamic control, no dynamic control, or for the 16 pads to act as preset levels for the selected voice. All of these apply only to the inputting of data. The last button allows you to overwrite the hi-hat decay information after you have played it in.

Above this we have the main volume control for the stereo outputs, and the screen contrast controls. In the centre you will find the numeric keypad, plus the data entry tabs and wheel, and below that, three buttons for erase timing correction and tap tempo. To the right of these at the bottom is the transport control – record, overdub, stop, play, and play from start. Above these are fast and slow rewind, locate, fast and slow forward, and locate. There are three locate

Upgrade your MPC60

Not many of you who are still working with your MPC and MPC60 will have a native 16-bit drive. Although Digital Drive, developed for design work with waveforms, has not received rendering in the MPC60, the offering, according to its creator, Michael, is still available. At a cost of £15.15 (inc VAT), it can be ordered from his website (www.mpc60.com) and will bring your MPC60 up to a 16-bit pixel depth to that of the MPC2000, with the proviso that it will then be able to sample up to 24-bit at 44.1kHz, 16-bit at 48kHz, 12-bit at 96kHz, and 10-bit at 192kHz. Michael also claims that it will bring a massive head of up to 128 sounds. And when saved as AIFF, sounds in MPC60 will now be saved as individual sound files, eliminating

unnecessary sound data for each sound saving, and the same sounds.

Installation of the upgrade is really very simple, and once done, your MPC60 is fully compatible with MPC2000 sounds. Unfortunately, it is not possible to upgrade the MPC60 to MPC2000, as the software that runs the MPC60 is not compatible with MPC2000. So, if you are upgrading, you will need to purchase a new MPC2000.

The second upgrade is the Human Drums MPC. This upgrade will add a further 16 voices to your MPC60, making it a total of 32 voices.

Options on the Human MPC include drums, and can be purchased on its own, or alongside the MPC60. The MPC60 Human Drums upgrade costs £150.00, and includes a 16-track sequencer, featuring the capability of a dual bank, then having two drummers to perform together.

The MPC60 Human Drums package is £399.99 (inc VAT). Both are designed for the serious sequencer. As with the MPC60, there are two possible live triggering options: velocity and note. And, for the moment, forget about the MPC60 Human Drums as a stand-alone piece of hardware. If you take both the MPC60 and the MPC60 Human Drums together, you have a complete MPC2000 system, with the added benefit of a 16-track sequencer, and the MPC60 Human Drums as a 16-track sequencer.

Akai prices

- ① MPC3000LE £2,799
- ① MPC2000XL £899

2000XL options:

- ① EB16 effects board £299
- ① 8-channel output expander/digi I/O £249
- ① 8Mb flash RAM board £249
- ① SMPTE chip £199
- ① CRT monitor output board £79

Linn prices

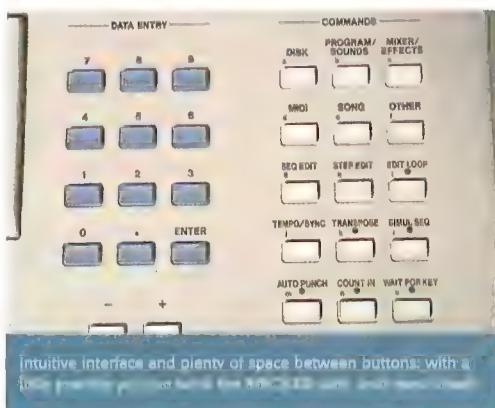
- ① Version 3.10 upgrade \$195
- ① upgrade from V3.0 \$95
- ① MPC-SCSI option \$300

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memories, plus the ability to load your current position. Above these buttons are 20 direct-access keys to the specific functions of the machine, and above these are four function keys and the Help button (more on this later).

Sited above this is the display, considered small by today's standards (it's the same size as that found on an Akai S1100), which displays all the functions of the MPC in text, and sometimes graphical display. None of this, in itself, may sound that special until you start to work on it – then you realise that every button is in the right place, and is also big enough and far enough away from every other button. With a little time you could work this machine with your eyes closed.

Along with the intuitive interface the MPC60 has a Help Button. This handy little chap relates directly to the position of the cursor on the screen and provides direct access to the MPC manual with information pertinent to the position of the cursor – in other words,



an online manual. This means that anybody with an idea in their head can sit down in front of an MPC60 without a manual and no prior knowledge of the system, and with a little time make it work, and make music.

The MPC60 has to be one of the easiest and most pleasureable devices in the world to operate. Its heavy construction of thick pressed steel and high quality plastics, and padded arm rest inspire a feeling of confidence. Rock-solid timing and its superb synching – having, as it does, the ability to sync to almost all codes known to man – made the MPC60 the ideal studio workhorse as well as an invaluable live tool. Apart from the occasional need to replace a display or a floppy drive most of the MPC60s are alive and kicking. At the same time the MPC60 was launched, Akai released the ASQ10 – essentially an MPC60 minus the sampler and drum pads. In 1988 the MPC60 II was released, and to many this was a great disappointment. It was exactly the same as



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the MPC 60 internally but felt less substantial. The addition of the headphone socket was an improvement, but the display size was the same. The growth in the use of sampling and audio loops meant that every sampler was expected to have at least 2MB of memory and access to some sort of SCSI storage, neither of which were provided by the MPC60 II.

MPC 3000

It wasn't until 1994 that the MPC came of age with the launch of the highly acclaimed MPC3000. The MPC3000 at first glance looks very similar to the MPC60 but for a few cosmetic changes, such as the display being moved from the right to the left and a few knob differences. The software interface is very much the same, but what is going on inside is very different indeed.

The MPC3000 is stereo, with stereo sampling inputs, and it can read MPC60, S1000, S1100 and S3000 files. It also has SCSI, and 8Mb of sampling memory. Everything that one could criticise in the MPC60 had

been corrected. It even has a digital input, and unlike the MPC60 II, is solidly-built. There's even a button for turning off the display, as on the S3000.

But not all the advances are so obvious. The sequencer now had the ability to not only quantise each part but to also quantise to different note values within that part, and one is also able to jump to next event in step edit (as in the Roland MC500). This is a very handy function that was the one drawback to sequencing in the earlier units. Sample editing was greatly enhanced, as was the filter section. The MPC3000 also has access to four sound banks instead of two, giving a total of 64 available sounds. The hi-hat decay slider was now

able to apply not only decay, but also pitch attack and filter information, and not to just the hi-hat pad but to all 64 voices. This is yet another totally unique feature. The loss of the external FX send and return was a small price to pay, and was compensated for by the implementation of an internal delay unit offering

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Roger Linn

Although Roger Linn's involvement with Akai is over, Roger is still very active as a designer. His website has a lot of active support for MPC owners including good technical support and, as mentioned on page 49, excellent software and hardware support.

Roger Linn is very enthusiastic about his work and told *The Mix* that new products are going to appear under his name next year. But what will surprise you is that these will not be a range of drum machine-based products but in fact will be guitar based. This is a subject Roger is passionate about, since he is in fact a guitarist himself, not a drummer. All we are allowed to say at this point is that these will be unique products that will radically change the options available for the guitarist. We await further news on this front with a great deal of excitement!



the new MPC2000XL looks like an Akai Linn, but it's actually quite a different breed of instrument

three forms of variable delay, and was accessed via the mixer window.

The combined ability to sample, edit and play within seconds of each action creates a working environment conducive to writing and creating music like no other device we can think of, and in this day and age there are many software manufacturers who would do well to look at the concept of this machine. The MPC3000 takes one second from power up to ready, willing, and able to work. A strange addition was a VGA display output option, which has merit as an idea, but unfortunately only displays a bigger version of the LCD display (we can see this being very useful for corporate displays – well, why not!).

MPC 2000XL

What about the MPC2000XL, you say? Well, the 2000 is no lesser instrument, but it's just not the same as an MPC3000. To all intents and purposes it looks like an Akai Linn, but in fact it's just an Akai. It shares the same big rubber pads, but inside, the sampler is quite different. Being able to load and save Wave files is one thing in its favour, and the graphic wave form editor is another. But the display is smaller, the key commands have changed, and the feel – if you will excuse the word – is less intuitive. The price, however, is almost a third of the price of an MPC3000. One often wonders why hi-tech companies with successful products feel the need to fiddle about with them.

The basic MPC2000XL comes equipped with stereo analogue outputs along with S/PDIF. Eight optional outputs are also available, as are the SMPTE sync board, the multi-FX board and 8Mb flash RAM board. The display is a little smaller, as is the box. If the

MPC3000 was your Aston Martin Vantage, then the MPC2000 is your brand-new Golf GTI – loads of features, but not quite the same class. So to celebrate this last run of the MPC3000, Akai have released the MPC3000LE.

The MPC3000LE looks fantastic. It's an MPC3000 painted black with Roger Linn's name in gold, and very pretty it is, too. As we understand they are all sold, but there's a rumour that a few more are being produced. To quote from a member of staff at Akai, "They come off the big lorry. They go on the small lorry. Then they're gone." It's true that this box has charisma, so if you can't settle for an MPC2000 you'd better hurry up and get in there, because the MPC3000 doesn't appear regularly on the second-hand market.

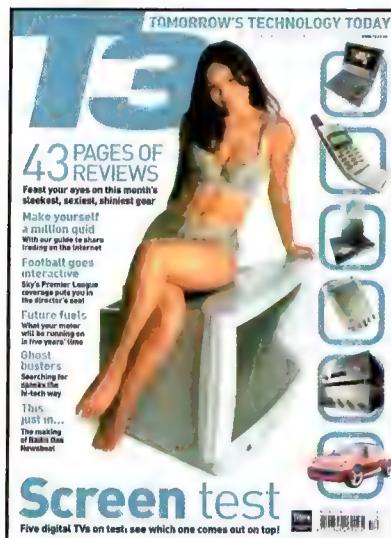
Users of the MPC60 and the MPC3000 are too many to list but they read like a *Who's Who* of modern music, from hip hop to R&B, from metal to jungle. With musicians like Courtney Pine, Booker T, Carl Macintosh *et al* it is obvious that these machines are favoured by the professional musician. For people who can hear in their head what they want and just need a tool to create their music, the MPC series is one of the few families of hi-tech equipment that one could genuinely call musical instruments, as well as a piece of production equipment. This is where the MPC series has found its niche – as a musicians' tool, not a toy.

More from: Akai (UK) Ltd, EMI Division, Haslemere Heathrow Estate, Parkway, Hounslow, Middlesex TW4 6NQ
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 Lots of little extras

Against Not ideal for the new user  Manual could be improved

Verdict A comprehensive package with features beyond a simple MIDI interface

Well, not being the most exciting tool in the studio makes life hard for the humble MIDI interface. Yet these devices have proven to be a stable hub at the centre of most MIDI-based workstations, where multiple instruments are connected together and controlled by a main source – a keyboard, computer, or even video system. Although we might not take too much notice of them once they're up-and-running, it's worth getting a good one.

MOTU (Mark of the Unicorn) are experts in the field of MIDI interfaces, and their systems are used by studios and artists the world over. Their software on the host computer is of a high standard, enabling the user to be as complex or simple as he or she wishes. However as most of us are aware, the computers we use are changing. Floppy disk drive-less models will soon become the norm, and we are now confronted with a new computer chip every month, and a different coloured box. SCSI and Firewire are now terms taught in prep school and USB ain't far behind, so the question is, what are the MIDI interface people doing about it? Aren't things complex enough? The answer is probably, 'Yes, things are complex enough, but here's the new USB-compatible interface anyway.'

Overview

So, the MIDI Timepiece AV USB, the Express XT USB and the Micro Express USB... what a mouthful that is! We were given the AV model to have some fun with, assuming MIDI interfaces are fun. The connections look much the same as on previous models, confronted as you are with a 1U black box with the familiar MOTU-style front and back panel. A couple of MIDI I/O ports make for easy connection, and a stream of slightly different-looking LEDs from previous models denote MIDI activity. There's a small screen in the middle, some black knobs – four in all – to change the status of the unit, and soft keys for entering, shifting, saying

yes or no and generally panicking when it all goes wrong. (Which is quite funny because it does go wrong – MIDI should have been called 'MIDI will go wrong'.) But at least the manufacturers know it and allow for it, and you can't get much simpler than a Panic button, can you?

On the rear, things are still quite familiar, with eight MIDI ins and outs, SMPTE I/O and an ADAT sync out port. There are Mac and network serial ports, and cheesy gold-looking BNC video-sync inputs and word clock outputs. In fact, the only major changes are the missing parallel port for a PC (unless you get the PC model) and of course the new USB 12mBit port for connecting the unit via USB (not surprisingly). And of course, there is a CD-ROM in the package alongside the USB interface cable.

In use

Well, you may as well load up the software as it gives you the latest versions of OMS and FreeMIDI, which are both standard MIDI system extensions for Mac OS. These versions allow the MOTU software to talk happily with your hardware interface, and anything that is connected to it. You choose – you can use either, or both together. You also need to load the USB Installer, which sorts the drivers out for USB connection, and then you're ready to fly. Fear not if it doesn't work first time – MIDI never does. Check and double-check the cables and things will sort themselves out.

Amazingly, we had no problem integrating this alongside our other two MIDI Timepiece AV models. The unit ran sweetly and because it's USB, you can always connect up to it hot without having to reboot – a small bonus, perhaps, but one that really helps when time is critical.

When you first set up the unit, the internal settings will be set to Basesetup, including all cable routing, mutes, SMPTE, channelling, in fact everything. You can

words **Seb Pecchia** images **Gavin Roberts**





have up to eight set-ups if you wish, all backed up by an internal battery, so switching between your basic studio and, let's say, a live set-up is as easy as pie. You can, of course, create modifiers alongside these set-ups which, in essence, is any MIDI command you can think of. Create and store up to 127 if you wish, but you have to create them as the unit doesn't come with any, for obvious reasons.

It basically works like this: a set-up is a patch, and the modifiers are the parameters that go into building that patch. They can be as simple as 'connect MIDI cable 1 input to MIDI cable 2 output' or whatever. The interface for all the parameters is very straightforward, giving clear, quick access. Although the screen is tiny, you can do everything you want from the software end, which is just how it should be.

Outside of internal details, you basically have the capability to use the unit as a transport control, allowing you to run a whole set of gear from one set of controls via MMC. There's also very comprehensive synchronisation capability, so ADAT, Pro Tools (Superclock), Performer, Digital Performer and video sync are all straightforward enough, as well as the ability to stripe SMPTE in any standard frame rate you can think of. You can even bang the Alesis LRC or any similar device into the pedal socket and control your MIDI Timepiece from it, as well as devices slaving to it.

It really makes a nice control centre for a small studio or production room. However if you're

wondering about digital, as we all do these days, you'll have to delve deeper into your wallet. For advanced digital functionality you'll need the Digital Timepiece that supports a host of digital features.

Verdict

A piece of equipment that will serve its user like a good gun dog, this stable and user-friendly central station for all your MIDI requirements is packed with loads of features and software. Once you get your head into it things are quite straightforward. The first-time user could get bamboozled by the whole thing, but it's worth spending time with it.

The USB side of things is very handy, but is really just a means to an end as far as the unit's functionality goes – it works, and that's the main point. You won't have any problems getting your iMac, blue and white, or G4 Mac to work, assuming you can find any in this country within the next year. Other than that, not too much has changed – it's still as solid as we've come to expect with MOTU products. If you own a lot of MIDI gear and you don't have a dedicated interface then this one's well worth the money simply because of its versatility.

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new releases



All the major album releases of the month reviewed and rated, our classic sessions spot *Milestones*, plus who's in the studio doing what with whom in *Recording In Progress*...

recording in progress

Massive Attack are at Ridge Farm studios recording their new album with producer Neil Davidge

Neil Davidge is massive

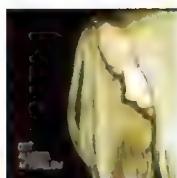
S Club 7 are at Whifford Street recording new tracks with producer Cathy Dennis

Kylie Minogue is at Battery studios working on mixes with Steve Power and Guy Chambers

Eden studios is the current home of Sinead O'Connor who are recording tracks with producers Cutfather & Joe

Dave Bottrill is producing new tracks for Witness at Eden studios

ADF: round the houses



DOT ALLISON AFTERGLOW (HEAVENLY)

As smooth as syrup and as light as air, Dot Allison's voice sounds like it's beamed down from a fluffy cloud. The much-awaited debut album from singer/songwriter Dot sees her collaborating with many trendy names such as Mani (The Stone Roses), Kevin Shields (My Bloody Valentine), Richard Fearless (Death In Vegas) and Hal David, yet even he doesn't roughen the edges. 'Afterglow' is consistently warm and soft, a little melancholic on 'Did I Imagine You' and a little funky and French on 'Mo' Pop'. Subtler than Saint Etienne and spikier than Morcheeba. • Gabrielle Stackpool

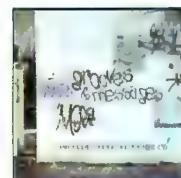
Producer: Dot Allison/Magnus Fiennes
Engineer: Magnus Fiennes/ Niven Garland
Studio: Townhouse
Verdict: Bittersweet pop 8/10



AZYMUTH PIECES OF IPANEMA (FAR OUT RECORDINGS)

Pieces... is Azymuth's third outing since Joe Davis corralled the veteran Brazilian jazz-funkers back into a studio, and as usual they wave a cheery hello in so many stylistic directions that it's a wonder they don't fall over. Jazz, funk, samba, disco and even honest-to-goodness house (albeit of the non-bangin' variety) are all present and mostly correct. Strangely enough, apart from the standout samba 'Mimosá', it's the house stuff that works best. And sadly, their peculiar live habit of ending each tune with the cry "A-ZY-MUTH!" hasn't made the CD. • Simon Ounsworth

Producer: Joe Davis
Engineers: Julinho, Paul 'Spike', Roc Hunter
Studio: Various
Verdict: Brazilian wrinklies point the way..... 7/10



WAR GROOVES AND MESSAGES: GREATEST HITS OF... (ARG RECORDS)

After being founded by ex-Animal Eric Burdon, WAR sold an amazing 25 million records in their heyday and did so with quality tunes like the Latin-esque 'Low Rider', and the throbbing funky disco epic 'Galaxy'. All are present here along with a bonus CD of remixes from Europe's finest, including Arnold Van Helden, Plump DJs, Orinoko, Hithunter and La Prozza Latina with WAR themselves. The new take on 'Low Rider' by our very own Ganja Kru – which switches from cool ambient, with ghostly echoes of the original brass – is the most innovative. • Phil Strongman

Producer: Jerry Goldstein
Engineer: Various
Studio: Various
Verdict: Time to declare WAR 8/10



BUSH THE SCIENCE OF THINGS (INTERSCOPE)

When Bush are good, they are very very good indeed. Like on opening track 'Warm Machine', which is an absolutely great song, all soaring vocals and driving guitar, a perfect slice of MTV rock at its very best. 'The Chemicals Between Us' is another example of a belter of a track: Gavin Rossdale's vocals are spine-tingling, and his and Nigel Pulsford's guitar work is clever and inventive. But, a large proportion of the album is just average, nothing special. Listen to 'Spacetravel', or '40 Miles From The Sun' and witness rock-by-numbers. What a damn shame. • Helen Dalley

Producer: Gavin Rossdale
Engineer: Various
Studio: Various
Verdict: Ultimately patchy..... 6/10

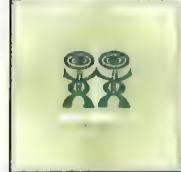


THE CHARLATANS US AND US ONLY (UNIVERSAL)

They're often dubbed as survivors, and it's easy to see why: it's not been an easy last couple of years for The Charlatans, with their keyboard player dying in a car crash, and their accountant embezzling their funds. But bizarrely, the more the shit hits the fan, the better the band seem to get. Now ensconced in their own recording studio in the Midlands and taking full responsibility for production duties, it really is, as the album title suggests, *Us And Us Only*. What a refreshing change to announce that every song on this album is absolutely blinding • Helen Dalley

Producer: The Charlatans
Engineer: James Spencer
Studio: Band's own
Verdict: Rootsy, bluesy, rockin' country.....8/10

For more information, contact the Office of the Vice President for Research and the Office of the Vice President for Student Affairs.



JUNGLE BROTHERS
V.I.P.
(GEE STREET
RECORDS)

The Jungle Bros have been rap pioneers since they set dancefloors alight with the second Summer of Love classic 'Girl I'll House You' and when it comes to intelligent hip hop the brothers remain kings of the, er, jungle. *V.I.P.* has a surplus of pulsing rhythms and nifty rhymes laced with some cool humour, fresh guitars, and some well-used samples. The title track shows that there's still a few of the latter left to be looted from the *I Dream of Jeannie* theme, 'Get Down' takes us to ska-ville and the delirious 'Down With The JBees' keeps things hot and tasty. • *Phil Strongman*

Producer: Alex Gifford
Engineer: Various
Studio: Various
Verdict: Very Important hip hop 8/10



KOJAK CRIME IN THE CITY (PRO-ZAK TRAX)

Kojak are being touted as the new French hip hop house collective. But don't let that put you off. They are très trendy, yes, but they are also warm, friendly, funky and fun. Their debut album encompasses garage, house, jazz, hip hop and funk, without sounding like yet another crossover band. Their sound falls somewhere between Basement Jaxx and Daft Punk on 'You Can't Stop It' and 'Hold Me' and that can only be a good thing. But the album suffers when they stick to a successful formula; a little experimentation wouldn't go amiss. *Gabrielle Stackpool*

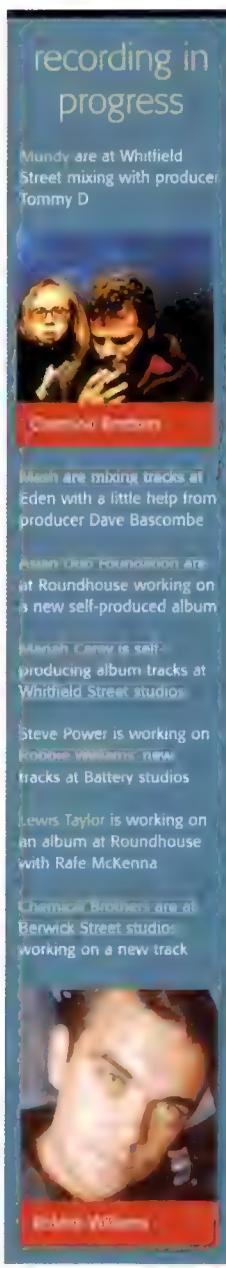
Producer: Kojak
Engineer: Kojak
Studio: Nekko
Verdict: Hip hop and happening..... 7/10



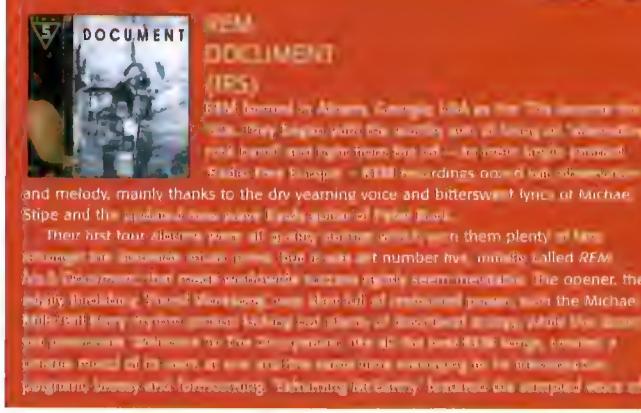
VARIOUS KING TUBBY AT THE CONTROLS (TROJAN)

Osbourne 'King Tubby' Ruddock was turning Jamaican scrap iron into radios when he was still in his teens and he went on to construct a studio in his flat, before essentially creating the dub and talkover genres by wiping the lead vocals from some dub plates and skillfully scattering in some heavy reverb verses and effects. ...*At The Controls* showcases 22 numbers, the best of the King's well-timed Trojan work with the Aggrovators, Horace Andy and Augustus Pablo, all with dropped beats, soloed bass lines and echoed effects to great effect. • *Phil Strongman*

Producer: King Tubby
Engineer: Prince Jammy
Studio: King Tubby's own
Verdict: Dub to die for 8/10



MILESTONES: 1987



Producer: Scott Litt/EMI
Engineer: Scott Litt/Gary Littay
Studio: Sound Emporium

feature

Nile Rodgers



The beat goes on

words **Jason Sidwell**

part
one

He's been shaping the sound of music for the past 20 years; now Nile Rodgers shares his accumulated wisdom with *The Mix*

Picture the scene: an early Friday evening, you've got a last fare to take care of in your black cab before hitting the gym for a good workout. You've two guys in the back wanting to go from Whitfield Street Studio to a big hotel on the Strand. You start a conversation and as the two passengers speak, you notice that one has an English accent and the other an American one, possibly New York. You ask the American what he does and he replies he's a musician. Intrigued, you enquire further. Turns out he was the guitarist in Chic as well as a producer for David Bowie and Madonna. Now hooked, you start to give this guy more attention. You repeat what he's just said and he nods, going on to say that he's also worked with Duran Duran, Eric Clapton and Diana Ross. Oh, and he's mates with ex-Guns n' Roses guitarist, Slash.

Just who on earth have you just picked up as your last ride for the day? You remember the ever-increasing crowd of people surrounding him when he hailed you down initially. Turns out he is Nile Rodgers. The same Nile Rodgers that over a period of two decades or so, has become one of the most respected 'A' list producers/arrangers/musicians/industry movers on the planet. You almost fall over yourself to offer him a ride back to Heathrow for the Sunday night, but he politely declines. A limo would be doing that job already. Seems some events will only happen once...

The chic of him

From his early days creating Chic classics like 'Dance Dance Dance', 'Le Freak' and 'Good Times' to huge-selling albums by David Bowie, Madonna and Sister Sledge, Nile Rodgers has more than made his mark on popular music. There are very few producers that have worked with as many big names or within as many stylistic circles as he has. And when you listen to the man talk, he has many more ideas and projects in the pipeline. Clearly, he is not slowing down for *nothing*. So considering his substantial career up to now, how did Nile Rodgers get into production?

"You learn by doing the job. When I started producing, I approached it primarily as an arranger. When that was right, that was my production. Initially I never produced other people's work, so I had to learn how to be a

complete producer by doing rearrangements or leaving it alone to work on enhancing the subtleties.

"A producer's primary responsibility is to get the best performance out of the artist that they can get. Everything else falls into place after that. You have to make the song the best it can. To me, that is the positive accumulation of each individual performance. You also have other, 'social' factors, like getting suitable people involved, getting them in the right state of mind, knowing when to call it quits and making people feel you're on their team. It shouldn't be an adversary relationship or an ego clash – if I make a suggestion it's only because I'm searching, just like them."

With the music technology revolution that's happened over the last 15 years, many in the business have observed that the role of the producer has changed. However, according to Nile it's not so much changed, but rather, become more accommodating. Instead of musical literacy being of utmost importance (educated or otherwise), other music disciplines such as DJing can be just as valid...

"Originally, most producers were also good musicians. For example, Bob Clearmountain is a brilliant engineer as well as a great bass player. On occasions this meant he could fix a bass part after everyone had left! But nowadays, the best music doesn't necessarily have to spiritually connect with people. Sometimes it's clever, quirky or just a novelty. But they have all been produced and someone has said 'that's the cut – we're finished'.

"A teacher once told me that any record at the top of the charts was good. Whether I liked it wasn't the point – why should I consider myself the ultimate consumer if millions of other people liked it? The record at the top has fought through the whole industry process and still delivered. Hit records go through numerous barricades, so I have learnt to respect most things that are successful. It doesn't mean I have to like all of them, though!"

So if hit records oil the cogs of the music industry, what sparks him off creatively? "As a producer I have to give the artist what they want. Sometimes they say 'I don't want to compete with the Spice Girls. I just want to do great work and my audience will be whoever it is'. I can wear that hat, but I love it when I'm given a specific function like 'Hey Nile, make a hit record!'. Very few people are that blatant and up-front with me."

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When I put on that hat nothing is more exciting and challenging than to try and make something a hit that otherwise may not be." "At this point in my career, I've never had more fun than when working with new artists. I'm working with a new band at the moment called Strange Folk, which is a blast! They're a great jam band in the tradition of Dave Matthews and Phish. It's the first time I have ever recorded a group initiated from a live show and not a demo. They have a lot of die-hard fans that follow them around. The ideas I gave them, they performed well and loved them! They're like 'Fuck, Nile, we'll have to practice our album now you've made the songs better!'"

Good times, bad times

To many, Nile Rodgers is most closely associated with the ultimate dance/disco superstars, Chic. Formed in 1976 by Nile and bassist Bernard Edwards, their breakthrough came with the hit 'Dance Dance Dance (Yowsah Yowsah)' from their debut album, *Chic*. The follow-up, *C'est Chic*, yielded the classic tunes 'Le Freak', 'Good Times' and 'I Want Your Love', and the band became renowned for (amongst other things) the rhythmic interplay between Nile, Bernard and drummer Tony Thompson.

During the '80s, Chic continued while their celebrated guitarist and bassist pursued solo projects and new productions. In 1992 they re-grouped for the single, 'Chic Mysticé' and a follow up album, *Chic-ism*. Following this, Nile won the 1996 JT Producers award in Japan and the band played a number of successful

concerts (and featured in a 90-minute TV profile) before Bernard Edwards' sudden death from pneumonia. Their last performance with Bernard is captured on *Chic Live At The Budokan* (see separate section on page 64).

When questioned about Chic's success, Nile is very sure of the band's appeal and why they succeeded: "A lot of record people didn't understand how powerful a groove and an arrangement is. When Chic had finished a song, we would take it to a nightclub full of strangers and play it. If they danced it was good; if they didn't, it sucked. We used to wait until the dance floor was packed and then put the record on. This was a tough trial by fire, the way I learned to make records. Consequently, my standards of judging whether a song is a hit or not are based on very tough criteria. So by the time I get something to the record company I know all that stuff."

"Here's a true story: 'Le Freak' is the biggest-selling single I've ever written, produced or had anything to do with my entire life. We initially played it for our record company, which was gracious enough to have a big meeting with us due to our first record's success. However, as soon as the record was finished we looked up and the entire conference room was empty save for Bernard and me!"

"Five to ten minutes later, the President of the record company walked in with a very solemn look on his face and asked if we had anything else on the album. He said 'The promotion guys don't think they can make this record work at radio. They're not feeling this,' he said. I told him we had a lot of songs on the

"Bernard looked at me while we were jamming and said 'You know, this shit is happening. That made us focus and develop it into Le Freak"



Nile and Chic co-founder Bernard Edwards in one of their last-ever performances before the bassist's sudden death from pneumonia

Photo: Nile Rodgers Productions

» album that were better than 'Le Freak' compositionally and intellectually but nothing as successful as that would be. He says 'If they're better, then won't they be more successful?' I couldn't believe we were in the same business – that has nothing to do with success! It seemed funny to me people don't understand what makes a hit record is something that works for a bunch of strangers. You don't really know why they like it, they just do."

Speaking of 'Le Freak', Nile recalls that the creation of the song was just as angst-ridden as that first record company airing... "It was New Year's Eve and Grace Jones had invited us to Studio 54, as we had never been there before. 'Dance Dance Dance' was at No.1 in America but that hadn't trickled down to the men on the door. So even though we were going specifically to see her we still got turned away!

"Dejected, we got a couple of bottles of champagne and went around the corner to my house. We were dressed up in our suits looking like Chic, and started curing our depression with jamming, champagne and marijuana. We were playing 'Fuck Off' because it was what came to mind after our treatment from Studio 54. Ultimately though, we had a better party – Bernard looked at me whilst we were jamming and said 'You know, this shit is *happening*'. That made us focus and develop it into 'Le Freak'."

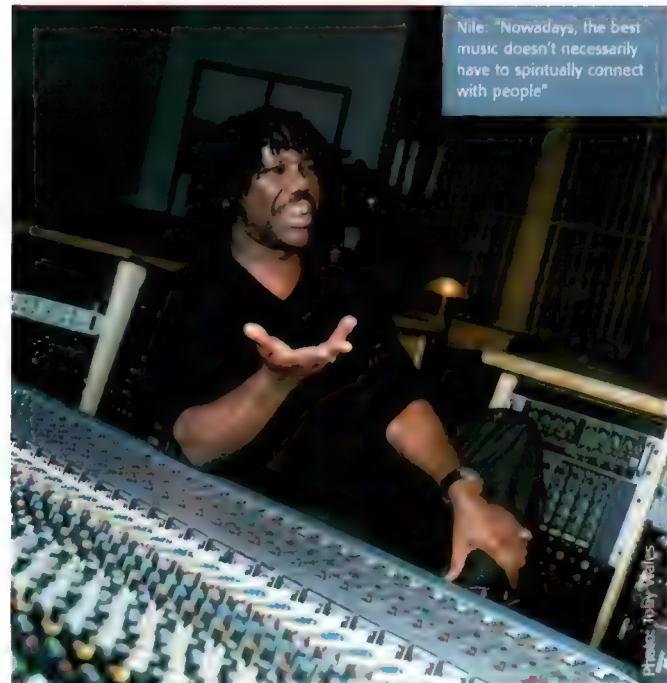
Other Chic classics developed from more 'conventional' studio jams. 'Good Times', featuring one of the greatest basslines ever recorded, came about after Nile had spent a night partying with Queen bassist John Deacon, as Nile recalls...

"I walked into the studio and I had these chord changes and a groove that I started to work on. Bernard wasn't even there but I knew John was dying to pick up the bass. There was the nucleus of Chic with me and Tony Thompson and he's like, 'I can't wait to play with these guys'. He didn't do it though, because he knew we were making a record.

"So Tony and I were jamming, and Bernard walked in and heard me jamming in the booth and wanted to know what I was working on. Bob Clearmountain said 'I don't know, it's something Nile has just walked in with' and I guess Bernard was feeling guilty because he had turned up late. So he walked through with a huffy attitude and started playing something that was contrary to what Tony and I were playing. So I screamed over the drum kit to him to 'walk' – he had always wanted to do a song with a walking bassline. So he went 'cool' and he played the line as on the record right away, giving us the space. He looked at me and said 'Something like that?'. I looked over at Bob and screamed 'Yo brother, make it red!'. We recorded it there and then."

After hearing such revealing tales, it's clear that Chic was a partnership whose decisions were fuelled by musicianship. Creative control was firmly in the hands of the band, despite various attempts at interference by record labels.

"The great thing about my life, artistically, is that no one ever told us



Nile: "Nowadays, the best music doesn't necessarily have to spiritually connect with people"

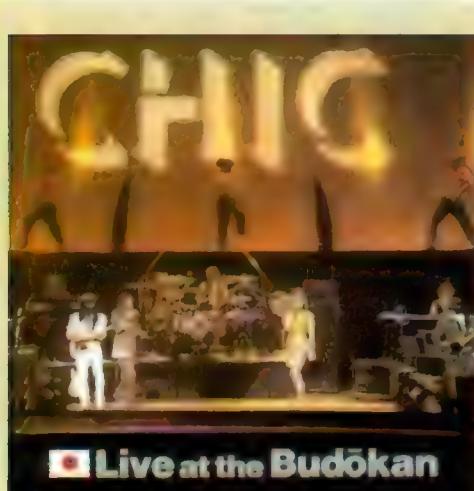
what to do. They attempted to, but Bernard and I were headstrong. It was very difficult to listen to a typical record executive who didn't have a clue how the business ran. They told us we couldn't have a breakdown on a single, but we did on 'Dance Dance Dance'. With 'Le Freak', the hook is the smallest part of the record. The 'Aaahh, freak out' – it's a breakdown. That was unheard-of in traditional record making, where the hook is the fullest part of the record. Any record, from Abba's 'Dancing Queen' to The Who's 'Tommy' to Cream's 'Sunshine Of Your Love' – they all have big hooks.

"The record company thought we had lost our minds, but they only thought that because they didn't hang out in clubs and didn't see the DJ EQ all the frequencies out of the music and the people scream. So we did a similar thing over the radio airwaves, and the public responded in droves."

Nile and Bowie

Bring up the subject of David Bowie and the stories come thick and fast about 1983's *Let's Dance* album sessions. As Nile's first major pop production away from Chic, Sister Sledge and Diana Ross, it proved

»



The first release on Nile's Sumthing Else label, *Live at the Budokan* was recorded direct to digital in Japan in 1996 and features Chic with special guests Sister Sledge, Steve Winwood and Slash. Not only does the record demonstrate Chic's live prowess, it also captures the last performance of bassist Bernard Edwards, who, sadly, died in his hotel room from pneumonia after the show. The bass legend was a performer to the end, as Nile recalls...

"He was literally in the last few hours of his life and he was playing brilliantly. He collapsed two hours before we went on stage, and because we're not doctors, we had no idea that when your fever gets that high, your brain literally boils and your organs play up. We didn't understand that you can die from hyperthermia as well as hypothermia. But that's not what he died from. It developed into pneumonia, and neither us nor he knew it.

"There is no proper mixdown of the performances that night because it was live, straight into the mixing board and out to the recorder. People call me up and say 'Hey man, can I remix that Chic live record?' but how can you remix it? The

guitar is bleeding onto the vocal track and so on, you try to solo some part and the other parts are there too! There is a lot of stuff I could have done to enhance it, but in my heart I felt people need to hear this stuff raw.

"These are all people that have contributed a lot to Chic and to my life. There was Omar Hakim on drums, who is just a smoking player and has played with everyone from Weather Report to Sting. The keyboardist, Philippe Saisse, has been with me in various incarnations over the past ten to fifteen years. Richard Hilton, who we've just celebrated a tenth anniversary with, also played keyboards. Our percussionist was Gerardo Velez, who played on stage at Woodstock with Hendrix.

"If you speak to Slash, or anyone, they'll tell you before the first night the band was not that tight. But when they said, 'Ladies and gentleman, JT Super Producer Nile Rodgers' it was almost like the hand of God came down and touched us. We sounded like we had played together for 20 years. It came together that exact moment."

Live at the Budokan is available on import.

selected productions

- 1979 Sister Sledge 'We Are Family'
- 1980 Diana Ross 'Diana'
- 1981 Debbie Harry 'Koo Koo'
- 1984 Hall & Oates 'Adult Education'
- 1984 INXS 'Original Sin'
- 1984 Peter Gabriel 'Walk Through The Fire', 'Out Out'
- 1985 Mick Jagger 'She's The Boss'
- 1985 Thompson Twins 'Here's To Future Days'
- 1986 Jeff Beck 'Flash'
- 1986 Duran Duran 'Notorious'
- 1986 Grace Jones 'Inside Story'
- 1986 Al Jarreau 'Moonlighting'
- 1989 B52's 'Cosmic Thing'
- 1989 Dan Reed Network 'Slam'
- 1989 Diana Ross 'Workin' Overtime'
- 1990 Vaughn Brothers 'Family Style'
- 1993 David Lee Roth 'Your Filthy Little Mouth'
- 1993 Eric Clapton 'Stone Free'
- 1996 Bob Dylan 'Ring Of Fire'

See Chic live

Next month: Chic take to the road again, this time to do their own tour. In the meantime, here's a reminder of some of their greatest hits.

12th Dec: Birmingham, The O2 Academy

13th Dec: London, The Roundhouse

14th Dec: Manchester, Academy 2

15th Dec: Liverpool, The Empire

16th Dec: Birmingham, The O2 Academy

17th Dec: Bristol, Colston Hall

18th Dec: Nottingham, Capital FM Arena

19th Dec: London, The London Arena

Guitarists!

If you're interested in Nile's guitar prowess, check out the January 2000 issue of our sister magazine *Total Guitar* for a guitar-orientated profile and a transcription of Chic's 'Le Freak' with a solo by Slash.

an eventful time, to say the least. "That record is still, as far as I'm concerned, my most rewarding production to date. Even though it clearly sounds like Bowie – his voice is so distinctive – when you hear the tracks and the guitars it sounds like a Nile Rodgers record in the tradition of Chic and Sister Sledge.

"When David came to me with the songs, he believed they could be hits. When I first heard them I thought he was crazy. This was a guy who I had idolised all my life – I loved *Ziggy Stardust*, *Young Americans* and *Heroes* – but I thought he was being mean and cruel to me. Putting me to a test. I thought he wanted me to act like every other jerk in the music business and go 'Sure David, I think these songs are great'. At best they were OK, but they weren't what I'd consider hits.

"I called at least three friends that knew David and asked if he was playing a trick on me. They seemed to think he was serious. Then I began to realise that an artist like David Bowie can make a hit and be held to different standards. His palette of paint is a wider palette. In other words, he can write an artistic song and have an audience that will listen to that."

As memorable and celebrated as *Let's Dance* has become, the path from demo to finished production wasn't always plain sailing. "When David wrote 'Let's Dance' I went to his house in Switzerland and he played it to me on a 12-string guitar like it was a folk song. I thought 'You can play that, call it 'Let's Dance' and get away with it?'. I was shocked. In my life, if I call a song 'Let's Dance' and nobody dances, it's a flop.

"Then he played 'China Girl', which he'd done with Iggy Pop. Again, I didn't think in that incarnation it could be a hit. He thought it was great and I was like 'Grrr! If I wrote a song called 'China Girl' and it wasn't representative of the subject, nobody would listen to it. They'd think I was the weirdest guy in the world! So what I did later was work it out with the band so we had it all hooked up. But then I was afraid to play it for him – totally afraid, because I thought he would hate it. So I pulled him aside and tentatively suggested this is how I was thinking the song should start. I played the intro guitar bit and he looked at me and said 'Wow, that's great!'. So I said 'You think that's great? Hey guys, let's do this!' and the band played the song. He loved it and we did it like that. That's the most nervous I have been in my life but it turned out to be a hit – a million-seller."

Considering the vastness of the *Let's Dance* project, it's surprising that the studio was booked for only 21 days, with the thought that evaluation and mixing would be done in another location. However, due to what Nile terms "a perfect marriage of vibe and people coming together", only 19 days were ultimately needed. What may also prove surprising is that most of the songs are covers. As Nile recalls, the album only contained two new songs: the title track and 'Ricochet'.

"Everything else had been recorded already, either by Bowie or somebody else. 'Modern Love' was done

by somebody else, 'China Girl' with Iggy and 'Cat People' with Giorgio Moroder. The point I'm making is that a lot of people only know my versions. As a producer, you have this framework and give it a big life and hopefully a big audience. And that's what David asked me to do: 'Nile, I want an album of hits'.

"The truth is, I could not have done something like *Let's Dance* without David. With Chic, no radio station would have played it, but with David, it was genius. That's what I love about being a producer – I can cross political boundaries. It's not my face and reputation that is being sold. I can work behind the scenes and do my stuff, but it's people like Bowie that sell it."

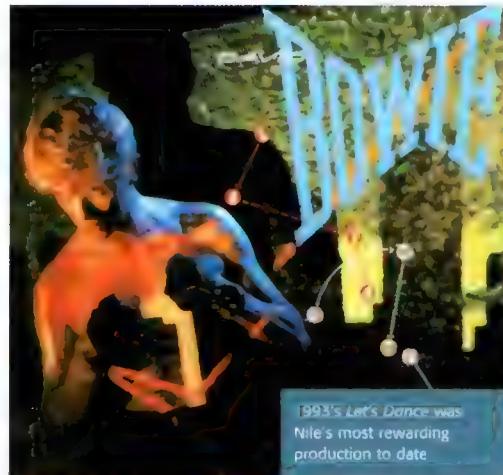
The Nile/Bowie partnership was rekindled for Bowie's first solo album of the '90s, after his rock forays with Tin Machine. In 1993 *Black Tie, White Noise* entered the top of the UK charts and his popularity for a new decade was reassured.

"When David phoned me to do *Black Tie*... I was so honoured because I thought that he was thinking like me: 'Let's crush *Let's Dance*! I knew we could do it. But David didn't want to compete with himself, and said so. I thought we should – why had he called me up otherwise? But then I realised my role is to help an artist see their vision, and I think I did with *Black Tie*."

This vision was certainly augmented when Bowie pushed Nile into new areas, the duo often combining concepts and technology to achieve new heights: "David had a brilliant idea

whilst away on vacation. He had taken the rough mix away with him and had been listening to it on his Walkman. He had it on slow speed, and played the title track to me down the phone. It was so cool and really unexpected! Thank goodness for the technology, because he wanted some elements at one tempo and other bits at another. I was like 'Aaahh!' but between me, the drummer and technology we pulled it off, bar by bar."

Next month: Nile on his favourite studio kit, and producing Madonna and Duran Duran



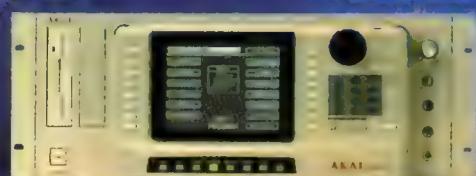
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Loco Studios

words **Oz Owen** images **Gavin Roberts**

This month, *The Mix* heads off to South Wales – the home of parrots, peacocks and Loco Studios

We as a band sold 15 million albums," explains John Payne, co-owner of Loco studios and member of Asia – the band, that is. "It's a bit of a '70s thing, you know? Sell loads of records, then go off and buy a studio in the country with loads of land and salmon fishing in the garden. The whole place has a bit of that kind of vibe to it." And it certainly does...

"The only thing I was a bit worried about was that the pubs round here were going to be like the Slaughtered Lamb, but they're really nice people round here. If anything, I think they're actually quite amused by us being here." Not that John, installed as he is with parrots and peacocks roaming the grounds, could be seen as an eccentric, of course. "You should have seen it when we had the ostriches. It was like Jurassic Park here, it really was."

Set back from a country road, off the beaten track, Loco Studios is set in the beautiful countryside of South Wales. Fully residential, sleeping six in the cottage, and in true 'us and them' style, the producer gets his own separate flat.

One way or another, Loco has been a commercial studio for about 17 years now, although John and his partner, Geoff Downes, also of Asia (ex-Buggles and Yes), have held the reins at Loco for four years. "We had a studio in London called Joe's Garage, but unfortunately back in '95 it got completely flooded. When we started to build things up again, we came here to take a look at an SSL desk they had for sale, but we arrived on a really beautiful sunny day and the place just looked amazing. There and then, we decided to put in an offer for the place, and they accepted."

"I think it was our lucky day because they'd just had a band in, and things got a bit out of hand. Apparently some of the guys were puking on the floor, another was jumping up and down on the SSL, while the last hurled a chair through the control room window!" Yikes. "We bought the studio because as a band we were

spending so much money recording in various studios that we thought 'Why not get our own studio?' It definitely makes sense to have a place to put all the gear in. Often bands like us end up storing all the gear in a lockup, so we thought we'd kill two birds with one stone. As a result, we have a lot of vintage gear stashed here, and the clients can use all that at no extra charge."

For their first year at Loco, John, Geoff and the boys recorded the last Asia album, and then decided to open things up a bit. "Initially we weren't going to run it commercially, but the place had been commercial for so long it seemed like a good idea to hire it out, so for the last three years it's been commercial again.

We've had some big bands in as well as up-and-coming ones – a lot of local acts. South Wales has been called 'Britain's Seattle', but I'm not sure if that's a good term to use. But in the last fifteen years the studio's seen quite a lot of work. Oasis recorded some of *Definitely Maybe*, and the Verve did their *Northern Soul* album here, to name a couple.

Loco has always been a band-orientated studio, and that's the one thing John and Geoff thought could change when they started up here, as John explains.

"Geoff, who's the keyboard player with the band, has loads of old analogue synths and modules, so we thought we'd do more programming stuff, but we've had

very little work like that. The only band we've had in that's been totally based that way has been Bentley Rhythm Ace. We're not consciously going for the programming/sequencing side of things, but we've since decided to set up a new control room with lots of MIDI gear and a Pro Tools system. It'll be using the same live room, but just tagged onto the back of the existing studio, doubling up as a tracking studio to get things down to tape when necessary."

"As you can see, we're set up for analogue here. One of the reasons is because it's an industry standard. 2" tape has been an industry standard for years now and the majority of recordings are still done on that format. If you go for a digital system, what's an



John and Geoff Downes



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Otari MX80 16-track 2"
Pro Tools
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Wardrobe BBSMS
Yamaha NS10
OUTBOARD
AMS RMX16 reverb
AMS DMX 15-80s delay
Eventide DSP4000
EMT 140 Plate
Lexicon 480L reverb
Lexicon PCM80 reverb
Lexicon PCM70 reverb
Urei 1176LN x2 limiter
Tube Tech LCA2B compressor/limiter
Neve 2-channel 110
KEYBOARDS
ARP Odyssey
Hammond B3/128
MimMoog
Prophet 10
Soline String
Steinway 7'6" Grand



John: "There are so many ways to record, but there is one failsafe standard, and that is 2" tape"

⑩ industry standard? Sure, you've got Pro Tools, and yes, you've got RADAR, but then there's the Mackie coming out soon, the Tascam, the two types of ADAT – there are just so many formats, not to mention all the people with audio/MIDI sequencers. There are so many ways to record, but there is one strong standard and that's 2" tape.

I also like the failsafe aspect of tape. If you do have an accident with the tape, like it cuts, it's in one point and can be repaired. If you're putting tracks on digital and you have an accident then the whole bloody lot can go. You have to spend a lot of time backing things up, streaming to DATs and so on. But from the sound point of view, I think most producers would find it almost impossible to say whether something has been recorded on digital with great converters, or on 2" tape – I think it can be quite hard to tell.

"We have the Studer and the Otari tape machines here, and for drums and really low bass frequencies the Otari is amazing, being a 16-track, but still on 2" tape. There's more space between each track, and more tape for each track to record on, so the result is a really big sound – and I know that some digital machines can have a bit of a problem with really low sub bass."

Loco does run a Pro Tools system as well, and that's partially a commercial decision. "For me, it's a bit of a learning curve that I wanted to get into, and we found more and more that we were having to hire in Pro Tools for sessions, so it seemed more cost-effective to get one ourselves. On the one hand, I wanted to get into it from a personal point of view for working with

our own Asia projects, as we do lots of big harmony vocal overdubs, and it's good for tidying up bits of noise. It's also good for being experimental when writing, like trying a chorus over here instead of over there, for example.

Again, one reason I've been getting into it more recently is because it is becoming an industry-standard. For editing, you just can't beat Pro Tools, and some of the plug-ins are just incredible. I've always been one for saying, you know, you can't beat a Fender amp miked up with a classic valve mic, but some of the amp simulator plug-ins are just incredible. Ultimately though, whether it's analogue or digital, it's a thousand times more important where the actual microphone's placed in the room and who's engineering. I don't think the actual medium it ends up on matters terribly.

So what lies ahead? "Haven't got a bloody clue – who cares about the future? With the music industry, there's more to be learned from the past than from the future. Lots of people get so preoccupied with the

latest, newest gear and not many of these things really revolutionise music. It may sound a bit boring, but it still comes down to the same old things – writing a really good song and making sure it's recorded well."



Loco's collection of vintage guitars not only play well, they make an attractive wall display

More from: Alison Durran, Loco Studios, Plas Llecha, Llanhennock, Caerleon, Newport, Monmouthshire NP6 1LU
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feature

DJ Vadim



Eastern block-rockin' beats

words **Derek O'Sullivan** images **Luke Shepherd**

Russian emigre turned hip hop producer DJ Vadim talks to *The Mix* about sampling, scratching and how to achieve the perfect beat...

It's a mighty long way from DJ Vadim's St. Petersburg birthplace to the loft conversion in South London from where his unique, self-contained hip hop productions emanate. With a fresh album, *USSR: Life From The Other Side*, picking up plaudits from the cognoscenti, and a track record in the hip hop field that covers countless productions, relentless DJing, the running of his widely-respected Jazz Fudge label, and co-running of a second

imprint, K'Boro, Vadim is very much a fixture within the UK hip hop scene.

As a committed exponent of the genre, Vadim was flying the hip hop flag way before its long-overdue UK recognition began to take hold, and consequently he has the ears of some of the most important protagonists of hip hop culture around the world, many of whom also appear on his album. The result is a long player of internationalist, funk-fuelled, beat-heavy hip hop that's a triumph of creative production over a relatively humble studio facility.

For Vadim, hip hop is a legitimate musical form with a creative philosophy to which he strictly adheres, albeit one whose origins lie in the appropriation of sounds. "The whole thing is about creating new music from sounds that no-one else has used," he offers. "The way I work, it's a question of taking a single sound from a record: one drum, or one note from an instrument. I'm not using a four-bar loop or a huge chunk of music. It's lots of little sounds sequenced together, which becomes very difficult at times - sometimes things just won't stick."

His is an entirely contrary approach to that of many of the more commercial, swingbeat-orientated hip hop acts and Vadim is keen to emphasise the fact that there's a lot more to his music than simply bolting together big hooks and breakbeats. "What I do is very different to say, people like Puff Daddy, who'll take 32 bars of a Police track and build around that. There's a song on my album with 220 different samples alone, which gives an idea of how complicated things can get. It was a scratch track, with loads of spoken word samples and all sorts of stuff going on, and it proved to be a real nightmare to mix because it was so complex. That's a good example of the way my tracks are constructed."

Cold war of sound

While Vadim recognises that hip hop originated and developed in the US, he's also convinced of the importance of the UK contribution to its continued evolution, particularly as more indigenous producers begin to establish their own distinctive characteristics. "When it comes to hip hop, a lot of





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Ashley Sheinwald, student, 2 hours sleep between two recording sessions
and a digital editing session.
Total duration 49 hours (not including the two hour sleep)

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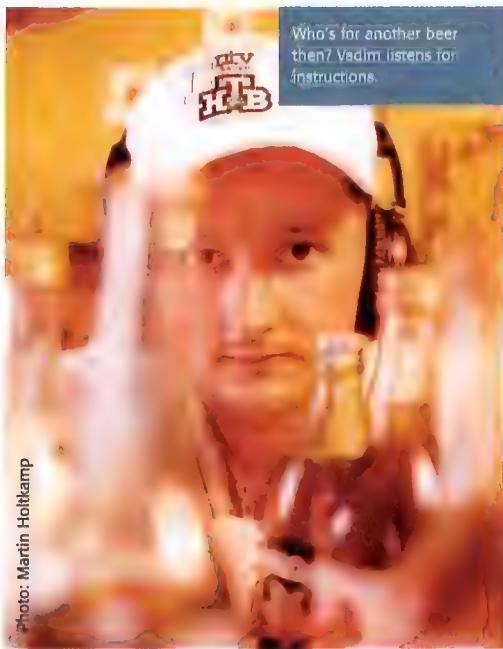


Photo: Martin Holtkamp

people say that American production is so much better," Vadim admits. "But it's not like they're using equipment that we haven't got over here. They're using Ghosts and SSLs. And what else would you use for vocals but Eventides, and Neumann mics and AKGs? The difference with hip hop production in America is that they have engineers and studios and production houses that have been doing nothing but hip hop for ten years. In the UK we don't have that level of expertise in that sound, although we do have it in other music, like drum'n'bass, for example. You listen to American drum'n'bass and it doesn't come close to the UK stuff, because people over here have grown up with that music, and many of them came from reggae houses before that, so they can work that sound to kick arse. It's about knowing how to use the equipment to make the music you want to do."

While he's open-minded, Vadim has a definite idea of what's good and what ain't. "It comes down to two things, really," he begins. "The arrangement and composition, and then the quality of the sound. Some people have one and not the other, some people have neither, and a few artists have both." Such as? "Gang Starr, for example. They make records that really thump. I don't really listen to CDs, but on vinyl they've got it. Their stuff's mixed at DND Studios in New York, which always seems to get a really good sound. With hip hop, it's the beat, and Gang Starr get it just right."

And how does he think that 'just rightness' is achieved? "In America, the mastering house does a lot of the work, whereas in England, post-production and mastering is often like an afterthought. Over here, people spend months on a record and then master it in a few days, whereas you hear about Ry Cooder recording for twelve months and then mastering for another nine, or hip hop groups in the States taking weeks to master their records."

Vintage appeal

While Vadim's G3 Mac is responsible for sequencing and much of the live recording, he remains a keen advocate of older technology, particularly when it

comes to outboard. "At the moment I'm using Cubase VST for sequencing," he explains. "People keep saying I should try Logic Audio, but for my purposes they all do more or less the same thing, and I'm so used to using Cubase that I can't see the point in changing."

"I haven't really used the plug-ins much because I'm not fully convinced that they're right for the sound I'm trying to achieve," he adds. "I don't like using over-complicated gear; you tend to end up spending hours trying out different variations and possibilities, and the time you lose rarely translates into an improvement on the original sound."

And this attitude equally dictates Vadim's taste for no-nonsense processors, as he reveals: "It's like the Focusrite channel strip. That's set up for vocals in a way that I rarely need to alter, and generally I like outboard with two or three knobs - simple and user-friendly. The Urei compressor is a good example; three pots, three buttons. Piss easy, and it always sounds good straight away. Likewise with the Joe Meek gear."

"And remember the Pultec stuff?" he enthuses. "Old valve units, simply configured, and they sound brilliant. They're going for about three grand now. And those Fairchild limiters, massive contraptions with big military valves that people were using for mastering in the late '60s/early '70s? They had a classic sound, but when studios moved to solid-state they ended up propping up mixing desks and coffee tables, until in the '90s studios re-discovered them, and now they sell for 17 grand or something. I could use one of those in my studio. As far as I'm concerned you can never have enough compressors." Ah, the fickle ears of music production...



Selected kit
Comics
Mackie 14.4
Recording
Tascam DA30
Alesis ADAT
Apple Mac G3 running Cubase VST, Sound Designer II and Peak SFX
Akai S3000XL & MPC3000
Processors
TC Electronic Finalizer Plus
SPL Qure parametric EQ
Alesis Quadraverb
Eventide HF5000D/SX Ultra Harmonizer
Drawmer DS404 Quad 4-Band DBX Subharmonic Synth
LA Audio 45 noise gate
Urei 1176LN limiter
TL Audio CL compressor
Drawmer DL421 compressor



The beat generator

There are few genres as well-defined and hard-edged as hip hop, so it's little surprise that the music area of production Vadim has a significant proportion of his studio space dedicated to it. He's a firm believer that hip hop music needs to be sampled from just one source, a share from *Sampled! 2* (see box). "I don't like to sample from lots of different sources, because then you end up with lots of different sounds and it's not consistent. I like to sample from one source and then process it to make it sound different. I've got a lot of different pieces of hardware that I use to do that, and I can arm them all up and sound I like pretty much. I'm the main rival as far as I'm concerned. I probably the closest to me. You're much crunchier 'cos it's DAT, but it's very easy to do what you want - you've only got six or eight sampling times."



DJ Vadim's Mackie desk takes pride of place above the bo

» Keepin' it real

As far as the all-important vocal elements of Vadim's productions are concerned, again it's a surprisingly traditional approach to production that dominates, with the ADAT and valve processing rather than hard disk and digital effects doing the work, as he elaborates: "I don't sync the ADAT to the Mac, because they don't really get along so I tend to record any live stuff to ADAT and then transfer it to the computer. I use the ADAT as a safety backup more than anything else, particularly for vocals, where a performance is always going to be unique. I might use a bit of reverb or delay from VST, but most of the processing is done on the desk from the outboard gear."

"The way I work is to run the mix through from the desk, into the TL Audio compressor, into the TC Finalizer to get the level to zero and give it a round shape, then onto DAT. Then

from the DAT it's recorded into Sound Designer on the Mac. I normalise and trim in Sound Designer and put it into Peak SFX and boost it, then transfer it into Cubase as an arrangement for, say, a 12", as A1, A2, A3, B1, B2, B3 whatever. So I end up normalising and boosting three times along the way, which gives a definite quality to the overall result on vinyl!"

As for the future, Vadim is cautiously optimistic about the continued growth of UK hip hop, although slightly less enamoured with the predominance of other styles

"The one thing that's bad about this country at the moment is that house music is too dominant. It's important to have a wide a choice as possible, and we don't seem to have that now. We've had people like Tricky, Portishead, Massive Attack and Soul II Soul doing credible street music, but it's not hip hop, and I don't see why we can't have a UK hip hop artist reaching that level of success. It's going to happen sooner or later, when someone makes hip hop that's unique enough not to be called a copy of American hip hop, and that's truly relevant to people over here."

After 10 years in the game, Vadim is very satisfied with the growth of UK hip hop



Photo: Martin Holtkamp



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mac toolbox



Three new models, lots of video support and a new graphite colour for Apple's latest iMac range

Industry news, tips, advice, and software for Mac users, compiled by *Ian Waugh*

NEWS

To iMac, a son

Yes, all the rumours about a new iMac have proved well founded and Apple has released the all-new iMac. It comes in three models – iMac, iMac DV and iMac DV Special Edition.

They all incorporate a PowerPC G3 and a 100MHz system bus. The standard model runs at 350MHz while the DV models run at 400MHz. They come with 64Mb RAM (128Mb in the Special Edition); 6Gb, 10Gb or 13Gb hard disk; and an ATI Rage card capable of displaying resolutions up to 1024 x 768 on the 15" screen. It has a built-in 56K modem with the promise of being able to connect to the Net in ten minutes, USB and, on the DV models FireWire connections running at up to 400Mbps.

The DV models major on video. They can play DVD discs and include iMovie digital video editing software – plug your camcorder into the FireWire slot and George Lucas can watch out!

One of the interesting things about the new iMacs, which Apple is pushing, is the Harman/Kardon Odyssey audio system, which boasts a 34mm transducer reputedly capable of bass performance equivalent to that in a \$50,000 car. Whatever that means. The frequency response is rated at 100-20,000Hz. Anyway, we ain't got one so we can't test it. More to the point, it still supports 16-bit 44.1kHz audio and has a built-in mic, ostensibly for speech recognition. As far as we can tell from the limited specs released so far, it has no internal PCI connection, so you can't plug a pro audio card into it, although it does support audio USB devices if you choose to use them.

Interestingly, they don't have an internal fan, which means it'll be several dB more quiet than any other computer in the studio! The new iMac is \$999, iMac DV is \$1299 and the Special Edition is \$1499. We are still waiting for confirmation of UK pricing.



Apple's all-new iMac comes in three models: iMac, iMac DV and iMac DV Special Edition

More on 4

Here's wee bit more info about the G4. It comes in three speeds: 400, 450 and 500. The 400 model includes a PCI slot with accompanying PCI graphics card but has no wireless networking capabilities, no digital video input support, and the same modem as found in the Blue & White Macs.

The other two feature an AGP graphics slot and card, support wireless networking via the AirPort, video input and have a modem specially designed for the G4. They also have two USB ports, each with its own 12Mbps channel instead of two ports on a shared

channel. This means that both get the full benefit of the throughput, which is obviously useful if you're using it for digital audio purposes, although one would expect that anyone with a G4 would be using SCSI or FireWire for audio purposes, not USB.

And should you want to do so, and unlike previous Macs, you can boot

the G4 from a USB device.

Mac musos

No one can doubt how influential the Mac continues to be in music production. If you want to read a little about the part it plays in the musical lives of Garbage, Primus, Roger Fisher and Scott Amendola, check out: www.macdirectory.com/Interviews/Index.html.

Osmosis

We know there are hardware samplers doing sterling service in many a studio. But what if you do want to convert to a software-based system? Can you use your Akai sample CDs? It used to be a bit of a faff, not least of all because computers can't read Akai CD formats, and then there's the problem of converting programs into other formats.

But BitHeadz's new Osmosis utility can do all this. Pop an Akai sample CD (S1000 or S3000 format) into your Mac's CD ROM drive and Osmosis will display

partitions (in Akai parlance) in the usual Mac file format with a little triangle next to them. Open them up and you'll see the volumes (in Akai parlance) they contain. Open these up and you'll see the programs and samples they contain. You can audition samples, too.

The next step is to convert them into another format. Osmosis can currently convert samples into AIFF, SD II, Wave and Unity DS-1 formats. In addition, you can select the File Creator type for the converted files, which enables you to launch a specific program by double-clicking on the sample. Samples can be auditioned before conversion and several can be converted in one go.

And that's about it. A recent update to the program enables it to read Roland sample CD ROM libraries. There's a demo on the cover VD and you can download a demo from: www.bitheadz.com.

Osmosis costs £99. More from Turnkey on 0171 379 5148

Recording Tips

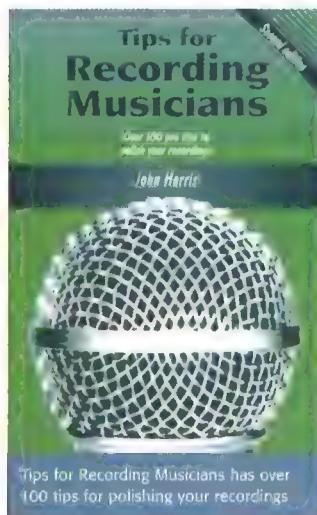
Whatever size our studios may be, we're all recording musicians under the skin. Whether you record to tape or computer or use a combination of both, the basic principles of recording remain the same, even though some of the techniques may differ. And there's always a little bit more to learn.

Tips For Recording Musicians by John Harris is just that – a concise book of over 100 tips covering the main areas of recording, suitable for tape and computer-based recording in studios large and small. It's the second edition, so if you missed it the first time 'round, now's your chance to pick it up. The new edition is in a larger format with more piccies and includes a section on recording synths.

The first few chapters talk about getting the right tools for the job, how to get the best from your desk, and arranging and overdubbing. Following chapters cover acoustic instruments, guitars, drums and vocals. They discuss recording procedures and considerations, mic positions, how to achieve certain types of sounds, what effects to use and what sort of special effects you might want to try.

In just a few sentences, the author sums up salient points of procedure such as saying that with the right microphone in the right to record hi hats all that's needed is a bass roll-off. On recording vocals - one technique is to use a second Mic in a live area to pick up the room reverb, compress it heavily, gate it to produce an aggressive sound and mix it with the close-miked vocal. The section on vocal effects mentions John Lennon putting his vocals through a Leslie cabinet on 'Revolution' and the fact that Prince (or the artist that was) often uses a combination of modulation, delay and reverb.

Other chapters cover MIDI in the studio and how to get a good mix – this will interest just about everyone! There's also a chapter on post-production tips.



The book is a mine of information. You can't fail but to learn a mound of techniques simply by browsing through it. *Tips for Recording Musicians* is £8.95 from PC Publishing. Phone 01732 770893, or check out the website (www.pc-publishing.co.uk).

We have five copies of *Tips For Recording Musicians* to give away. If you want one, send your full contact details on a postcard to Recording Book Compo, The Mix, 30 Monmouth St. Bath, BA1 2BW, by 1 January 2000.

Howay FretPet

It's a while since we've had something for guitarists, so here's one. Actually, it's not just for guitarists, anyone can have fun with it. Studiously avoiding any puns on Geordie colloquialisms, FretPet is a sort of fret-based sequencer. There's a lot to it so we won't try go over every single detail but essentially, you select and create chords and scales using a guitar fretboard, and add them to a chord bank from where they can be played in sequence.

You begin by selecting a key and then creating a chord. Basic chords are triads, but you can get as complex as you like. You can see the chords as chord symbols, on a fretboard and even on a piano keyboard.

When you are happy with the chord, you add it to the chord bank, which displays the chord on an extended fretboard. You click and drag dots onto various positions on the fretboard to create a pick pattern. Put all the dots in a single line and that's a strummed chord (it does strum rather than play the chord en block) or spread them out to create pick patterns and rhythms. The Chord bank actually contains four sections so you can create four-part tunes, say a strum riff, a bass line and a melody line, and, er... another melody line.

The program contains a mine of information about notes, chords, scales and so on. There's also a Metro Tuner windows, which combines a metronome with selectable drum sounds for the 'clicks' with a guitar tuner, although this only plays the notes so you can tune a guitar yourself. It doesn't attempt to listen to the tuning and measure it.

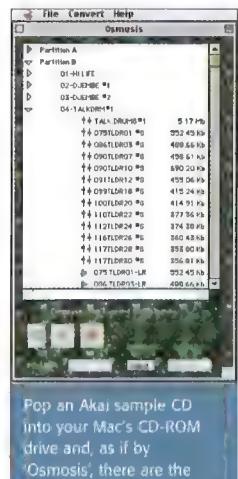
You can adjust the velocities of the chords in the chord bank, select different sounds, set a sustain level and adjust the tempo. There are lots of examples – which the programmer calls his Measly Attempts – to get you started. And when you've created a nice little sequence, you can export it as a MIDI file to load into a standard sequencer.

The manual is in HTML format and there are Netscape and Internet Explorer versions. Nice. It also makes extensive use of Balloon Help.



track 01

Create guitar chords with FretPet, and convert your Akai sample CDs to the format of your choice with BitHeadz Osmosis



Pop an Akai sample CD into your Mac's CD-ROM drive and, as if by 'Osmosis', there are the programs and samples

FretPet is £15 shareware, and is on this month's cover CD. You can download it from www.things-of-the-non.org/Pages/fretpet

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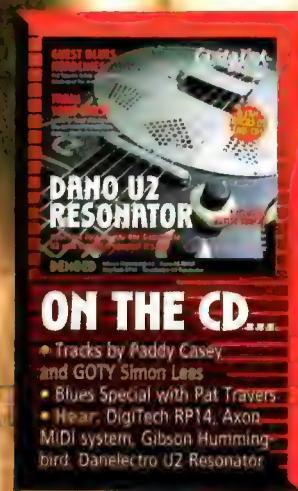
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INTERVIEW & COMPETITION

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pc toolbox

News from the industry, advice, tips and software for PC users, compiled by *Ian Waugh*

NEWS

Microsoft drop billions

Share watchers will have their own thoughts about whether or not technology shares are overvalued. Microsoft president Steve Ballmer thinks they are, and said so publicly, causing Microsoft shares to fall \$5 and wiping \$1.2 billion from his personal fortune. What an expensive press conference that was! However, many industry pundits believe that Microsoft wanted to lower their share price before the mad rush of internet company launches that are expected to take place next year, which could cause a drop in the price of technology stocks.

Intel's chips delayed

Following on from last month's *Toolbox* news, Intel have had to delay the launch of their i820. This is due to problems with the Rambus technology, which could cause memory errors. This chip is generally intended for high-end machines so where this will have a knock on effect remains to be seen.

Taiwan rocks

The Taiwan earthquake in September in which around 1,800 people died also hit many of the country's high-tech companies. Taiwan manufactures 10% of the world's DRAM and over 80% of the world's graphics chips. Although the disaster is expected to have caused no more than two weeks of lost production, distributors have been quoting severely hiked prices, sometimes as much as 30% more. Inevitably, this will filter down to consumer computers and RAM prices, so keep your eyes peeled.

Free games

As another example of the computer cartel, you may recall that in 1992 the major computer magazine publishers agreed not to put full games on cover-mounted CDs. If games are free, the reasoning went, who would buy them? Forget a free market where goods, services and prices would find their own level, this is blatant protectionism under the guise of a gentlemen's agreement.

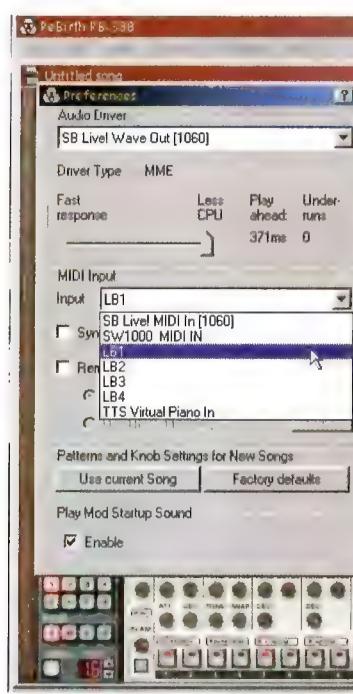
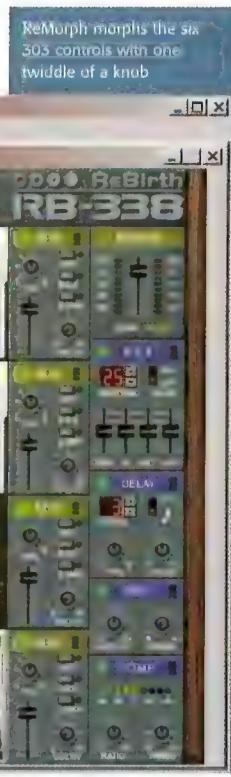
Well, Eaglemoose Publishing stirred the pud when they put a copy of Interplay's *Stone Keep* on its *PC Ace* part-work publication causing ELSPA (European Leisure Software Publisher's Association) to rear up and predict the demise of software publishing. Well, hardly. As with

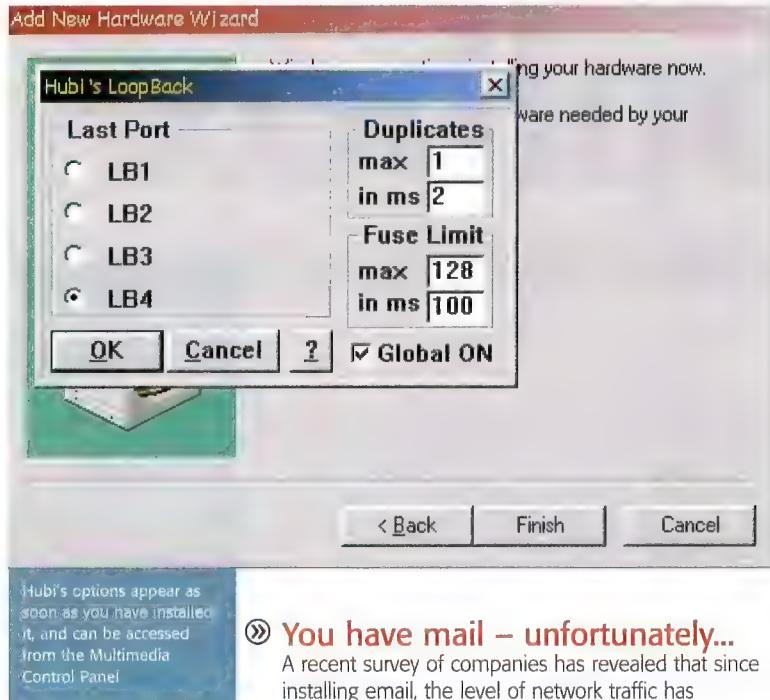
water, if left alone, the price and quality of games will find their own level. Eaglemoose defended their action saying that *PC Ace* is a part work and, therefore, not the same as a monthly magazine. Okay, so you get *Stone Keep* for (nearly) free – you going to stop buying games? Sheesh!

Beam me up, Ted

Remember those plug-in memory/data cards so beloved of science fiction writers and used in many films, including the beloved *Star Trek*? Well, the reality could be closer than you think, thanks to a new development by Ted Williams, Emeritus Professor of Engineering at Keele University...

The good professor has come up with a credit card-sized solid-state memory device capable of storing 3.4 Terabytes (that's 3,400Gb) of data with an access time of 100Mb/sec. It's based on a magneto-optical system and it could be used in any number of consumer devices from TVs to watches, and it could give your humble PC the storage capacity of a mainframe. The best news is the price – anticipated production costs should be less than £30. Now how's that for a hard disk!





Hubi's options appear as soon as you have installed it, and can be accessed from the Multimedia Control Panel

» You have mail – unfortunately...

A recent survey of companies has revealed that since installing email, the level of network traffic has increased by almost 40%. A third of the companies surveyed believe that the majority of email is of a personal nature and not connected with the job. Even of the email which is work-related, over half is deemed to be unnecessary.

The concern is so great that many companies are imposing restrictions on the use of email. It'll be interesting to see how that works in practice. Whatever happened to the internal office memo? Oh yes, they're now sent by email.

ReMorph

If you like Revolve, which we featured in this column last month, and if you dabble with ReBirth, you'll like ReMorph. It's a small knob-twiddling utility for ReBirth, which allows you to move all six 303 knobs at the same time using a single knob. It requires at least ReBirth version 1.5 (preferably v2), of course, plus Hubi's Loopback Device, of which we have more to say in the next section.

With Hubi's Loopback Device installed, open ReMorph, select MIDI Output from the Options menu and set it to one of the LB channels. LB1 is good. Leave the Remote MIDI Control Channel at 1. Fire up ReBirth and open Preferences. Select LB1 as the MIDI Input, check the Remote MIDI Control box and make sure it's set to 1, too.

Now when you twiddle the dials in ReMorph, the dials in ReBirth will twiddle, too. You can choose to control either the top or the middle 303 module. There are eight preset buttons, and here's how you use them:

Click on one of the buttons, then on Edit. Move the Morph knob fully counter-clockwise. Start ReBirth playing back and adjust the six dials until you get a suitable sound. Move the Morph knob fully clockwise, then change the position of the dials. Now click on one of the Preset buttons to save your settings.



CD info

track 01

Reroute the ins and outs in your MIDI software with Hubi's Loopback Device, and morph your Rebirth 303 knobs with ReMorph's single control

When you now move the Morph control, the dials will slowly move from the first position to the second one. Neat, huh!

Currently, the presets are saved with the program but you cannot save them as separate files. And that's it. Happy twiddling!

ReMorph is free and is on this month's CD, or it can be downloaded from the company's website: www.dimensionarc.com

Hubi's Loopback Device

ReMorph gives us the opportunity to look at Hubi's Loopback Device, which is quite timely because we've had a few pieces of correspondence about it from readers who aren't quite sure what it does (or how to use it in the first place).

First of all, what does it do? It reroutes MIDI data between applications internally within the PC. If you have tried to use two MIDI devices simultaneously, say by trying to play a MIDI file with Windows Media Player while a sequencer is open, you'll probably get a 'MIDI device is currently in use by another program' message. Loopback puts up to four virtual Ins and Outs into your MIDI system. Its use with ReMorph and ReBirth as described above is a classic example of how it can be used.

Installation seems to cause some users problems. The Loopback Device is a driver and must be installed like any other driver via Add New Hardware in the Control Panel. Here's how. Open it up and run it. Let it search for new Plug and Play devices – it shouldn't find any if your PC has been set up and configured properly. It then asks if you want Windows to search for new hardware. Tick the No box, click Next and select sound, video and game controllers. Click Next then click Have Disk. Use the Browse button to navigate your way to the directory where Hubi is stored. Click on OK and the driver will install. You must restart your PC before it becomes operative.

If you now look at the MIDI Ins and Outs in your software, you will see the LB ports, which can be selected like any other. Loopback supports up to four ports, but you can select any number from one to four. It also has a Fuse function to prevent a MIDI short circuit, which can occur if you set the same ports as In and Out in an application. Not that you'd do anything as silly as that, of course.

To make changes to the settings after it has been installed, open the Multimedia Control Panel, select the Devices tab, open MIDI Devices and Instruments, select one of the LB ports there, click on the Properties buttons and then on the Settings button. Yes, it is a bit down in the dungeon, but that's Windows for you.

The Loopback pack also includes Hubi's MIDI Cable, which connects MIDI inputs to MIDI outputs. It can be used to connect Loopback ports to hardware ports, for example. But that's enough technicalities for now – the program comes with copious instructions.

Hubi's Loopback Device is freeware. It's on this month's cover CD, and can be downloaded from www.dimensionarc.com

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THIS
MONTH'S
ESSENTIAL
GUIDE!

Logic Audio Power Tips

words **Alan Branch**

Logic has a reputation for being powerful, but somewhat complex. Let our pro tips help smooth the way...



CD info

track 01
The demo version of Logic Platinum 3.5 is on this month's CD, so you can try out the tips even if you're new to this package

Who hasn't been in this situation before – you've used a program for a while, then some Smart Alec comes along and shows you a function that you haven't seen before, and you can't believe you never knew it. Well, to remedy that situation, here we go with Power Tips for Logic Audio...

While we've tried to fit in some good general-purpose tips here, it's never easy to give comprehensive guides to such powerful and complex programs. Logic Audio is without a doubt one of the most powerful sequencers around, so if you're an existing Logic user, you should find these tips to be an invaluable guide to some of the finer points of the software. And if you aren't a Logic user, then you might find the demo on the CD a good way to introduce yourself to some of the tips mentioned here.

This tutorial is based on Logic Audio 4.0, arguably the most widely-used MIDI/audio package within the UK's professional studios, rather than home/project studios. And before anyone writes in, we don't want a pointless Cubase vs Logic battle raging here – they are both excellent programs.

Setting up screensets

Logic has some brilliant functions that can speed up operations immensely. One of the main ones is the use of Screensets. Logic has up to 90 Screensets, and

setting these up well is very important. The default Screensets are a good guide, but each screen can be tailored for dealing with specific types of work.

As an example, here are some suggestions. Pressing 1-9 brings up your main working screens. These can be laid out with each screen having a different size, different view options and multiple edit windows, which can all be linked and view locked. The main Screenset 1 can be left as the default for overall song structuring, while Screenset 2 can be set with the audio environment page for mixing adjustments (see fig. 1). Remove all view options not needed, like the side toolbar, using 'view/hide parameters' menu. Now we can see more audio faders, as the page default becomes a long row of audio objects (see fig. 2). Now recorded audio becomes easier to manage. Combining the improved audio mixer window with the arrange page gives maximum flexibility for mixing.

For Screenset 3, make a combination MIDI editor by having a Matrix editor open until halfway with an Event editor below it, then link these windows via the contents-link control. Now if you select a MIDI part from your main Arrange or another Screenset and flip to Screenset 3 the events will automatically appear ready to edit.

Remember, these are just suggestions to give you an idea of how your system can work better and faster –

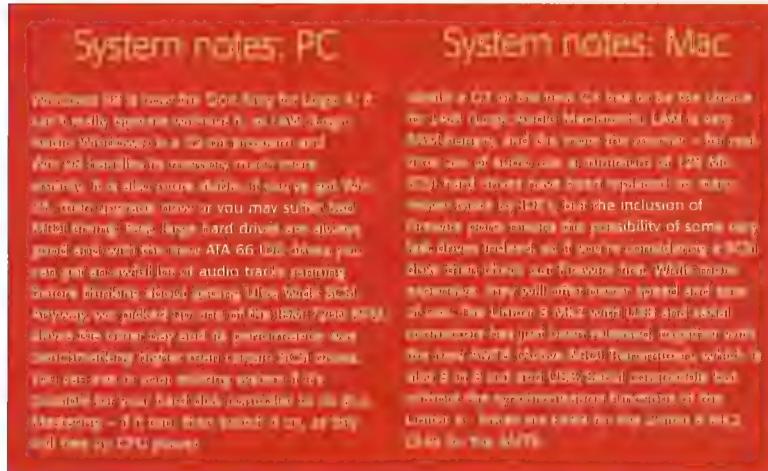


Fig 1: The Audio Mixer window with toolbox and sidebar info. But wait! Screensets can be set up more efficiently than this



Fig. 2: A streamlined Audio Mixer window with optimum space given to channel faders - coupled with the Arrange Window for an Audio-based Screenset.

you may prefer your MIDI editors on Screenset 2, and so on. On Screenset 4 try and set up a different Arrange page for audio editing. For example, lose the sidebar options via the view menu, and by placing the mouse at the top left corner of the Arrange window drag the rest to a minimum, ensuring the maximum amount of the work area can be seen. Screenset 5 can be another Arrange page, but now combined with an Audio window at the right hand side, so all audio parts and regions can be seen as a list and can be easily dragged into the arrange window, or renamed as necessary.

A notable key command to look up here is Show All or Hide All Regions, as this closes or opens all audio regions. Screenset 6 can be another MIDI combination, this time the Hyper Edit and the Event list. As you can see, a bit of preparation here can be a brilliant time-saver.

Quick start

Here's another useful timesaver: if you're working on the same songs again and again, why not save them onto your desktop for the duration of your project/session? Clicking on the songs will automatically launch Logic.

Track resizing

Within Logic 4.0, tracks can now be different sizes. This can be used to great effect increasing, say, a lead vocal region or guitar part that you're working on. These independent zoom levels are made by clicking on the bottom left of the track in the track list. The cursor will now change to a pointing finger which, while holding down the mouse, you can drag the track to a new size. This is very handy for visual reference within your song (see fig. 3).

Heavy breathing

Again by maximising your view and your tool selection, it becomes much easier and faster to deal with audio parts. Here's another tip for vocal parts: some breaths can sound quite loud, and on certain occasions these can be removed, but take them all out and vocals can sound unnatural. Instead, trim the start of the audio by holding the mouse over the bottom left corner and click/drag to adjust, or by cutting and deleting the waste bit, simply trim right up to the breath.

Compiling vocals on PC

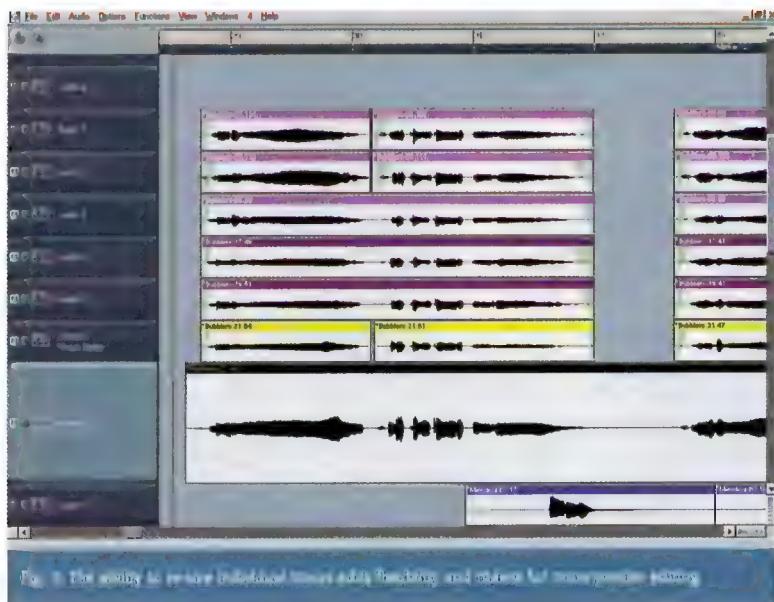
As an example, let's say we are compiling three vocal takes - choosing the best bits. Start by using the Arrange Screenset with the maximum view. Zoom in on these parts so you fill the screen, and set a cycle up that does, say, half a verse or similar. Make sure you go to Preferences and turn off the 'enable catch when some parts' option, as this will stop the screen moving when you press play.

Now left-click on the Scissor tool and right-click on the Mute tool. Hopefully, your three vocal takes are pretty much in alignment, so you can chop them all at the same time. Drag the scissors over all three parts to select them, and chop between every couple of words. Then right-click, hold, and drag your mute tool over all the parts. By giving the cycle a bit of a run-up you cycle around a line or two at a time, unmoving different individual audio words each time to hear which one is best.

When you're happy with your choice, drag

the cycle (click and hold) along to the next line, then start un-muting your next lot of choices. Now open up an event float window (one line position tool) and you can fine-tune the position of a part just by drag selecting it (remember you have the Scissors and Mute tools so you can't just click on it). Once a part is selected, the position parameters will appear in the event float, so just click and drag on its parameters to adjust it. The event float window is very small and can be positioned easily out of the way.

Once it's complete and you're happy with your selections, save as a new version of your song (or add a backup). Then use the 'Select All Muted Objects' function within Edit, and once all muted parts are selected, press delete. Now you've got a single vocal take from three tracks you can key any overlapping bits and trim any unwanted regions, and even bounce it down with the Glue tool for a new master vocal track while keeping all the originals safe and sound.



Learn your keyboard shortcuts

As with any program, the real speed comes when using hotkeys or keyboard shortcuts. The first hotkey to set up is the 'Open key Commands'. Assign it to the 'K' key. Now, whenever you want to assign a new key command, or peruse the list for hotkey ideas, simply hit 'K' and the window will open. There are many functions within Logic that are

accessible only via a keyboard shortcut and not within a menu, so they are well worth looking through. You may find it helpful to print out the key commands for a more convenient reference



Use markers to aid song navigation

Markers should be used to set out your arrangement as early on as possible to give yourself a clear overview of the shape of the track (see fig. 4). Right-clicking anywhere just beneath the marker bar at the top of the arrange page will take you straight to the beginning of that section, good for quick navigation and checking parts. You can also make use of these markers as text notepads, for any additional info or reminders you might need (see fig. 5)

Fig. 4 Logic's Arrange page showing the Marker List window open. The list shows markers with their names and bar numbers. The 'Start of List' and 'End of List' markers are at the top and bottom of the list respectively.

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» The environment

For new or experienced Logic users, the environment is usually the hardest to understand. Its basic job is to show MIDI and audio routing in and out of Logic. Emagic – being very clever people – have designed the environment to be an incredibly powerful interface. It has two main MIDI objects, namely the Physical Input and the Sequencer Input, and between these objects you can cable up a wealth of different types of environment objects. These can transform or route MIDI data before the Sequencer Input. Try experimenting with some of the included environments on the installation CD. When you find an environment that may be useful (let's say an arpeggiator) open your Autoload song and import that layer into your set-up.

Multisample quick editing

How about cutting up and editing multiple samples? If we import an audio track taken from a sample CD we get one audio track with a number of samples in it. To save time cutting them up, use the strip silence function within the Audio window menu to separate the samples into different regions by removing the gaps between them, then convert these regions into individual audio files.



Effects

When using the same effect for multiple tracks, use the aux sends and returns to conserve CPU usage. While being obvious to some, there are others who set up FX for individual tracks. If you do have to free up CPU power, turn off all plug-ins not in use, and bounce down some FX that are only on inserts. For bouncing, mute everything not needed by selecting solo in your audio mixer, then go to the correct Master Output (making sure that if the effect is on an aux return it is also routed there), and select Bounce. This will then save this as a new mixed audio file, which you can now drop into the position of the original. To create an effect-only bounce, just click-hold down your buss send to make it pre rather than post, then turn the fader to zero. Now the audio will only be heard through the effect. This is good for reverse reverb and delay FX – just reverse the audio part before bouncing.

Make more use of the Hyper Editor

The Hyper Editor is also an excellent place to edit continuous controller for all sorts of MIDI information. Add filter sweeps to synth parts, panning for spatial effects or quickly add dynamics with the note velocity stems. Most MIDI gear has different sets of controllers to do different jobs, so ideally you should create a Hyper set for the most important functions of each piece of your equipment. Then simply opening up the Hyper Editor window will give immediate access to all those frequently-used parameters in an instant. You may think it's a bit tedious to set up Hyper Editors for everything, but once you've done this it can be a real boost to productivity.

We asked one of London's top programmers, Simon Mundey, for a 'best tip' and he told us how to edit drum patterns with ease. So here's a quick way to set up a hyper set, (for example, drum pattern), once you've played your notes in ready for editing.

1. Select them in your matrix editor (this is optional)
2. Open Hyper Edit or get your Hyper screeners
3. Select 'Create Hyperset'
4. Click 'Multi event definition'. When the dialogue box opens, select your choice – choose All for all the notes, or Selected for just the notes you've selected previously for editing. Once you've done this, Hyperedit automatically creates a Hyper set with all the (or just the selected) events within the given range. All that's left is to name your set (in this case 'drums/kit-drum...'), and name the Hyper set (drums/percussion...)

Once moved across, it's possible to edit whichever MIDI parameters you choose in the Hyper Editor – filter sweeps, velocity and program changes, panning and so on.

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THE MIX

January 2000

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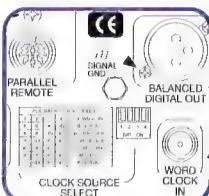
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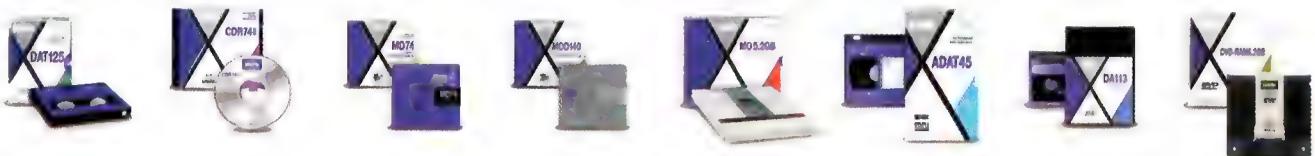
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Is your studio Millennium-proof?

On New Year's Morn will your sequencer go phut? Will your synths go fizz? Will your hard disk recorder crash? Will you have a hangover? *Ian Waugh* answers all these questions and more...



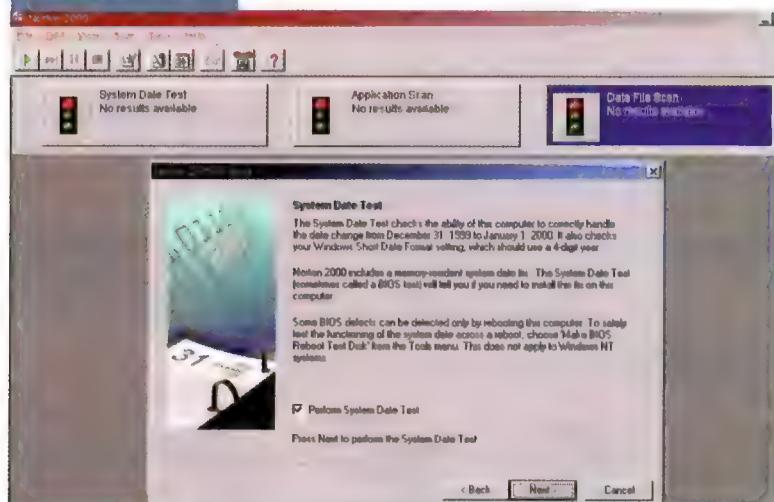
CD info

track 01

A collection of information and Millennium Bug check programs to test your PC for Y2K compliance.

See page 6 for full details

Norton 2000 provides a full Y2K check-up for both hardware and software



Even your Aunt Ada has heard of the Millennium Bug. Aunt Ada is the one with the fly swatter ready to squash the beasties as they crawl out of her TV set as the clock strikes midnight. Uncle 'Red' Rudolph is the survivalist, heading for the hills with a year's supply of canned goods and a pea-shooter.

What's going on? What exactly is the Millennium Bug and how will it affect us – in our recording studios and personally – as the century turns into the next millennium?

The Bug problem arises because of the way early computers store dates. You're probably used to seeing dates written as, say, 23/10/99, meaning the 23rd of the 10th month (October, to save you reaching for a calendar) 1999. The year, you notice, is written as two digits, and we assume that we're talking about 1999 and not 1899 or 2099.

Well, that's how early computers store dates, and it's the way they store the year that can cause problems.

When this century turns the corner and the date flips from 99 to 00, what year is it? Old computers are going to think it's 1900. Oops...

Okay, so what?

Well, if the system the computer is running uses dates as part of its input, it could run into problems. If it does financial sums, for example, its interest calculations could be out by 100 years. Software that runs scheduled tasks or timing systems could get it wrong, too. There is a whole list of potentially catastrophic disasters that could befall systems on the wrong side of the Bug, everything from invoicing and inventory control to banking and budgeting.

And there are other considerations. January 1, 1900 was a Monday. January 1, 2000 is a Saturday, so even if a system seems to have accepted the year correctly, the days of the week could get thrown out of kilter. 2000 is a leap year, so watch out for more fun and games on February 29. No, the game's not over until the fat lady sings and she'll be tuning up throughout the year.

How did it all happen? Well, when computers and devices with built-in clocks – this includes VCRs, TVs, microwaves and all the other gizmos which keep time – were first developed many years ago, manufacturers assumed that the stuff they were making would be assigned to the scrap heap long before the year 2000. As the years marched on, even though awareness of the Bug was there, manufacturers still assumed that their built-in obsolescence would consign their goods to the bin. The situation was not helped by the historical factor – two digits had always been used for the year so and 'if it were good enough for my father and his father before him it's good enough for me'. Some manufacturers, however, even well into the '90s, either ignored the problem or hoped it would go away.

We'll get to personal computers in a moment, but first let's see what this means for the world in general. Some people are worried that planes will fall out of the sky, ships will sink, electricity, gas and water services



will suddenly close down, banks will eat your money, the stockmarket will crash and it will be the end of the world as we know it. Bollocks!

The areas most at risk are companies and corporate structures, particularly those with old mainframe computers, which have stupidly left it too late to implement a solution. It will be surprising if the odd Y2K disaster story does not make the news but these are likely to be in the nature of machinery not working properly or trouble with a payroll program, rather than the apocalyptic nonsense some people are preaching. For the vast majority of us, it will be business as usual.

Billions of pounds and dollars have been spent on addressing the problem in areas affecting public safety and in utility companies. All major airlines have grounded their aircraft during the period, more as a reaction to public concern than a belief that there could be a problem. These areas are likely to be the safest and most secure of all.

So, will you be able to boil the kettle for a cuppa char and run a glass of water to take your aspirins on

New Year's Day? Reckon so. However, the Bug is guaranteed to hit one well-known device, and that's the clock meter in taxis. Try getting a taxi home from a gig at five past midnight and watch the clock spiral into infinity!

End of the world?

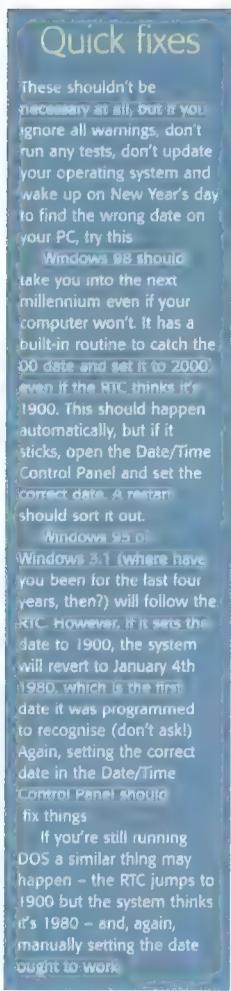
Having said all that, just to cover our burns, the bottom line is that, in truth, no one *really* knows what's going to happen. No, they don't. Not the survivalists, not the doom-and-gloom mongers, and not even us sensible sorts who think that, along with the Millennium celebrations, the devastations wreaked by the Millennium Bug will be more fancy than fact.

So does the Bug pose a problem for musicians? In general, we reckon not and the music hardware and software developers and manufacturers reckon not, too. There are three issues to consider: music hardware, computer hardware and software.

You may have a problem if you have a synth, keyboard or music device that relies on a date for

Y2K web links

- www.bug2000.co.uk
- www.y2k.com/2000/01/01/year2k/default.htm
- www.microsoft.com/uk/2000/year2000/
- www.pcy2000.com
- www.year2000.com
- www.y2kspecialist.com
- www.y2k.com/2000/
- www.bbc.co.uk/education/2000/
- www.y2klinks.com
- www.emagic.de
- www.yamaha.co.jp/english/y2k/index.html



» its operation. But we don't know of any. Do you?

All musical equipment that makes a noise ought to be just fine. Some older sound or audio workstations that archive material by date may get their knickers in a twist, but we suspect such equipment, if it still exists, will be rare. There, that was painless, wasn't it?

Computers are more of an issue, but any bought in the last three years ought to be fully Y2K-compliant. Older computers may be okay but check them just in case. We ought to say at this point that we're now really only talking about PCs. Mac users can smile smugly all the way to the pub, because Macs have been Y2K-compliant for donkeys.

PC users take note

The areas in your PC to check are the RTC (Real Time Clock) and the BIOS (Basic Input/Output System). The BIOS provides the basic information the computer needs to get out of bed in the morning and to communicate with disk drives and peripherals. It is responsible for passing the date onto other parts of the system when required. The BIOS gets the date from the RTC, so that needs to be checked, too.

You can run a simple check by setting the clock to a couple of minutes before midnight on 31st December 1999, switching off for a few minutes, then switching on and checking the day and date. You might also want to try this with the 28th and 29th of February.

There are, however, utilities that can do a more thorough job and provide much more accurate and comprehensive information, and if you want to do a serious check, we suggest you use one of these. There are some on this month's cover CD, and do check the web links in the listed on page 95, because some of these point to other sources of bug-checking software.

There are also several commercial software solutions that you might want to consider, although we'd suggest you try the freebies first. If you like Norton Utilities, try Norton 2000, which can apply a software fix if there's a

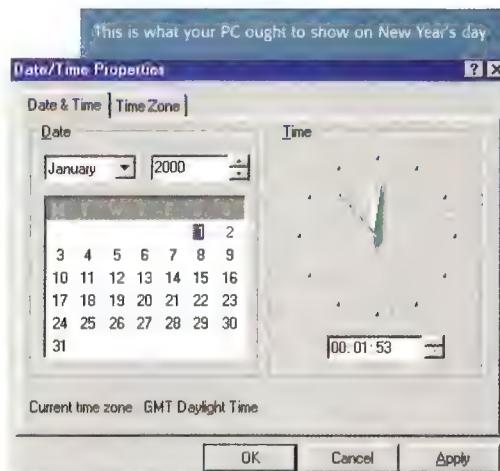
hardware problem with the RTC or BIOS (although in some cases it may say that you need a new BIOS).

It also checks applications and data files against its own database, reports any known problems and gives web addresses of sites where further information may be found. If you have a software or data problem it could be significant, because even though a computer is fully Y2K-compliant, if the software uses two digits for storing the year instead of four, problems could still occur. Even though the computer knows it's 2000, the software might think it's 1900. Such occurrences are most likely to occur with older software. But even as we rush headlong towards the new year, companies are still releasing Y2K fixes for their products.

Is this likely to be a problem with music software? Several music software companies have issued Y2K statements. Like music hardware, music software tends not to rely on the date for its operation so this ought to be a very safe area. MIDI files, samples and music data of whatever kind ought to be perfectly safe, too. One thing you may like to check, however, is if you have a system that sorts or organises files and archives by date, or if you are wont to search for files on a system by date. If it goes pear-shaped you'll be a hundred years out. If you have such a system, get in touch with the manufacturer, ask if it's Y2K-compliant and enquire after a fix if it isn't.

Other than that, musicians will be among the safest bunch of people on the planet (apart from obvious risks of over-celebration, a feat for which we are, apparently but unjustly, rather well-known)... If you really want to be super, super-cautious, there are a couple of things you can do. First, back up your data. Of course, you do this as a matter of course anyway, (ho! ho! ho!) but now might be a particularly apt moment to do so. The ultra-super-cautious might want to disconnect their equipment from the mains. No-one we have spoken to – apart from a few loonies – reckons there's any chance of a power surge, but you might not want to take any chances.

Finally, don't surf the Net over the witching hour. There is a small chance that some ISP servers might be affected, which could cause nothing more serious than a failed connection. Anyway, you sad drongo, you should be out partying, not surfing. Unless you're in Malibu, that is...



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glossary

ADAT

Alesis Digital Audio Tape. An 8-track digital audio format based around the SVHS tape standard. Also has proprietary digital, optical I/O format, now an industry standard

Compression

A process that uses a user set threshold level to activate a gradual attenuation on the audio. In this way, high levels are reduced and, subjectively, low levels are increased – hence 'compression'

Controller

Name for a particular MIDI message type used for adjusting parameters such as volume, pitch bend, and so on. A number of controller numbers are reserved for specified parameters, according to the official MIDI specification, but the rest can be used for product or application-specific control

DSP

Digital Signal Processor. An integrated circuit (chip) used to rapidly process data streams according to an algorithm

EQ

Equalisation. Frequency (pitch) selective filtering of audio in order to boost or cut levels inside the specified frequency range

EIDE/IDE

Data bus/connection standard for internal PC hard drive connections

Interface

Anything that aids interconnection. It could be a screen to a computer user, or the MIDI protocol to MIDI equipment

help file

Problems in the studio? Ghosts in your machines? Contact the *Help File*, where our team of audio experts try to solve your technical torments

the masterminds

this month's *Help File* team



NAME:
Adam Crote
OCCUPATION:
studio manager
CHOSEN SUBJECTS:
music software and hardware, internet, leek production



NAME:
Trevor Curwen
OCCUPATION: record producer/engineer
CHOSEN SUBJECTS:
vintage gear, microphones, loft conversions



NAME:
Oz Owen
OCCUPATION:
The Mix reviews ed
CHOSEN SUBJECTS:
Logic Audio, foreign correspondence, cheese making

QI run a recording studio and deal with loads of local bands. We have a lot of equipment here, and manage to put out some good stuff, but if there's ever a problem with anything, it always seems to be that the drums are a bit lacking. We've experimented with compressors, gates and EQ units, but we can never get that same 'punch' that makes the difference between a record that really stands out, and one that merely sounds like a demo. How can we get the sort of drums we hear on our favourite tunes? Any advice you can give on this subject would be very helpful.

Giovanni Guelfi, Italy

Getting that 'punch' when recording live drums can often be a little tricky



AWell, Giovanni, your luck's in. It seems that more than a few of you are experiencing the same problems, so we've set one of our top guys to work on some answers for you. Look out over the next couple of months for a series dedicated exclusively to recording live drums – the pitfalls, the solutions and quite a few tips to help you get the sound of the pro's.

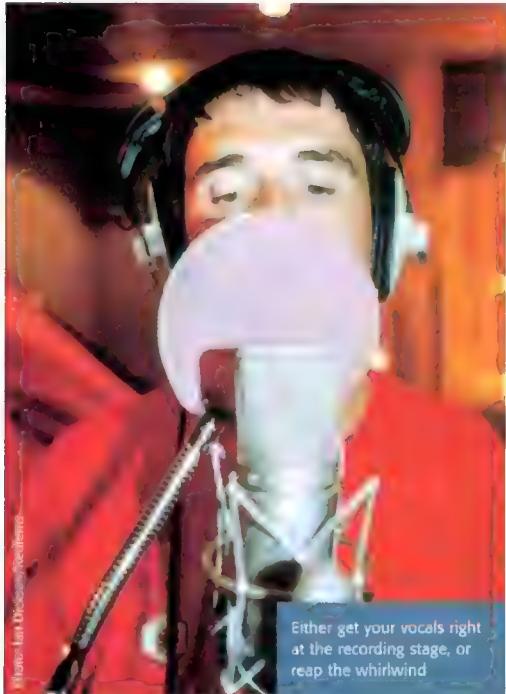
Oz Owen

QI produce music and videos, which I distribute free from my site. I do seem to have a problem with vocals, I can never get them to sound 'professional'. Is there a plug-in or a basic rule to get them to sound real? I use Cubase VST on a Mac.

Terence Jones, via email

AIf you don't make a good job of recording your vocals in the first place, there's little you can do with plug-ins later on that will rescue them. While it's true that there are many excellent plug-ins on the market (Antares Auto-Tune, for example, does the business when it comes to vocal pitch correction), the better your recorded vocal sound, the less processing you will need at mixdown. Here are a few pointers to help get a good vocal sound.

When recording, if you have a choice of mics, try them all out and see which one best suits the particular singer's voice. Use a pop shield in front of the mic and sing at a consistent distance from it – try to get close in, around 6" from the mic. Recorded vocals



can often sound amateurish by having too much of the room sound recorded with them. Once recorded you are stuck with this reverb and it may make it difficult to sit the voice in the mix with the rest of the music.

To minimise room sound, screen off the vocal area from the rest of the room (hanging up a couple of duvets can work wonders) and sing close to the mic. Add a moderate amount of compression when recording to smooth out the levels, and go easy on the EQ if you have to use it – try to keep the sound as natural as possible.

Assuming you have recorded a reasonable vocal sound, sitting the vocal in the mix correctly should make it sound more professional. Aim to get the vocal so that it integrates well with the music rather than floating on top of it or buried behind it. Add more compression at this stage to help keep the vocal level consistent, and if the vocal is in the centre of the stereo mix, try panning the other instruments away from centre to create more space.

To help sit the vocal back with the other instruments, bring in some reverb for depth and try adding some delays in time with the track, but keep these almost subliminal. You might also wish to try out some EQ, such as a little top end boost to open up the sound.

We hope these few tips help, but for more in-depth advice, check out our three-part series on recording vocals in issues 57, 58 and 59 of *The Mix*.

Trevor Curwen

Q Please help me! I have been into computer-based audio for about two years now. Originally I was using wave-based sequencers and getting good results, but a friend of mine said that MIDI was the next step. Up until this point I had never come across MIDI before, but being a cocky little sod I thought I could handle it (how wrong I was!). Anyway, I took the plunge and invested in an E-MU ESI4000 and a MIDI controller keyboard.

As far as ins and outs go, the keyboard has a gameport adapter and a MIDI Out, the sampler has MIDI in, out and thru, and the PC connects to MIDI via a single PC/MIDI interface cable.

So, I have it set up like this: the sampler and the computer are connected to the controller keyboard using its two MIDI outs, and I have the sampler and the PC audio-outs connected to my DJ mixer so I can listen to them both at the same time. I have been told this configuration should work, and up to a point it does – the keyboard plays whatever samples have been loaded into the E-MU, and when you play a key the MIDI I/O on Cubase's transport bar lights up. Now all's well and good so far, but when I hit record, the relevant keys that I have played come up on the screen, but I can't hear the sampler play them. Please help me, as this is turning me into an insomniac!

Mark Perry, via email

A Well, Mr. Perry, you've almost got the MIDI side of things, but not quite. I'm assuming from the way you've worded your question that you may not have the correct MIDI/PC interface cable. What you need is one with a D-pin-style connector for the PC end, and both MIDI in and out on the other end, giving MIDI in and out from the PC. So, assuming you have one of those, all you need is a little re-wiring on the MIDI side. If you don't have a MIDI/PC interface cable with a MIDI in and out, your local music store will have one for about £15.

What you need to do here is look at the flow of MIDI through your system. You start with the controller keyboard, which by its very nature only sends MIDI information. So the MIDI out on the keyboard has to be connected to the MIDI in on the PC. Then, take the MIDI out from the PC and connect that to the MIDI in on the sampler. Now when you play the





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» keyboard, the MIDI information can be recorded by the computer, as well as passing it on to the sampler. With this type of configuration you will be able to record any MIDI information, which can then be played back alongside the wave data coming from your computer's audio outs.

Oz Owen

Q I am reasonably new to the music mixing scene. In fact, I am a complete novice. I have wanted to mix music and make my own compilations for ages but have never been very successful, using a very simple four-channel mixing desk with no EQ or dynamics.

Do you know of any software that will run on my computer (Pentium PC, Windows 95) and will enable me to download several tracks from CD and then let me either slow down and speed up each track to match the beats? The idea of basic sampling also appeals to me.

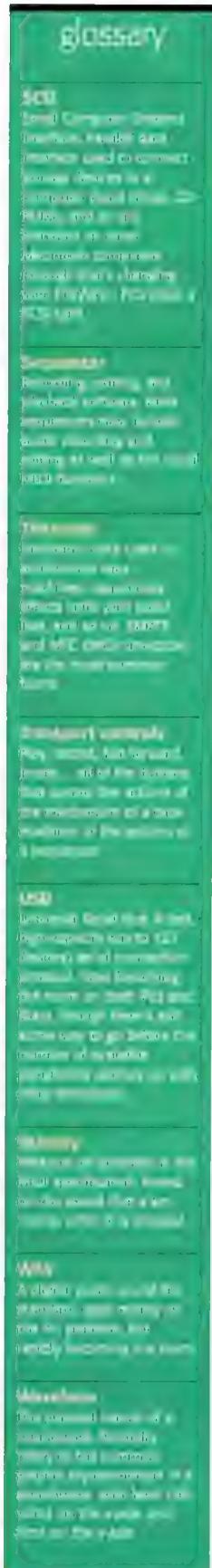
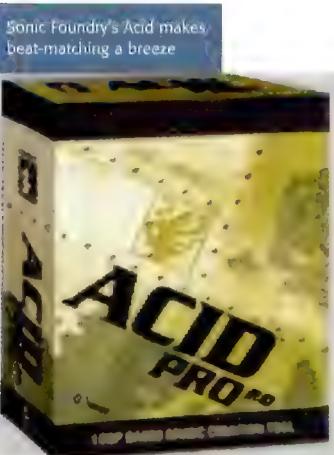
I am willing to spend up to £300 but the whole system must be self-contained. Can you help?

Adam Coston, Hertfordshire

A There are many software programs that will tackle your audio needs, Adam, but it strikes me that what you really need is Acid – Sonic Foundry's Acid, that is. Essentially a loop-based music production tool that allows loop arranging and editing, with real-time tempo and pitch changes to make beat matching a breeze. The package also comes with a loop library to get you up-and-running, with hundreds of pre-edited sounds that can be auditioned in real-time from the CD before simply dragging and dropping them on the arrange window.

Then, as well as the level and pan control for each track, there is also potential to add real-time effects from the provided plug-ins. Virtually unlimited tracks can be mixed, and up to eight effects can be employed simultaneously, dependant on system performance. As if that wasn't enough, further editing of wave data is possible with a cut-down version of Sound Forge. And all this for the rather low price of £249 means you've got £51 left over to celebrate your canny purchase. Need I say more?

Oz Owen



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Partner, Zip
Dog Records



Luke
Cunningham
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Sil Wilcox
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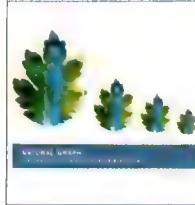
Robert Fox is known in DJing circles as Retroflare, and has managed to amass some critical acclaim for his trance-inspired blend of house. *DJ Magazine*, *Ministry* and *In The City* have all given kind words and it'd be silly to break the tradition. He's well into Laurent Garnier and F Communications, and it's obvious in the mellow mood that permeates this whole demo. And it's all been put together on a PC running Cubase, S3000XL and little else. Impressive. See, you don't need loads of kit to create a professional demo. Career-wise, it's never easy to make the bold leap from DJ to record producer, but Robert seems well aware of the potential openings here, and certainly has the ability to take it further. If he could get a few remixes under his belt he could really start to create that essential buzz around himself.

Stu: Well, it's OK, but a bit primitive. I suggest that Retroflare listens to, and makes, more material before trying to work them commercially.

Sil: An ambient offering suffering from the usual block-chord dilemma so typical on demos in this vein, unfortunately it ends as uninterestingly as it started.

More from: Robert Fox Tel: 0113 278 1656

NATURAL GRAPH CALMARAMA



TM: 'Relaxation' CDs don't generally get great press. Y'know; designed for pseudo-hippies who can't be arsed to learn to meditate. Anyway, Natural Graph manage to avoid the potential pitfall heroically. But that aside, there's a market for it, too. The main guru behind the project, Peter Parish, is a sound engineer of repute, and ably demonstrates his production prowess here. He also shows that musically he's got a clear and strong identity (even if it is in danger of being classed as new age, or some similarly derogative label) that shines through. It seems that Natural Graph want to go down the relaxing/meditation route, and, even though it's an area plagued by formulaic dross and overly-zealous money-makers, Natural Graph could be in a position to take the area full-on if they are able to break a mould that is, er, pretty difficult to break.

Luke: Sounds like the opening titles to a BBC magazine programme

Stu: Pretty – and pretty dull with it. I couldn't last till the end.

Sil: All very cool and wonderful, but unfortunately has no real mainstream appeal.

More from: Peter Parish Tel: 01708 459 947



URBAN LUNG - DEMO

TM: Urban Lung, aka Matt Donald, has a very intuitive knack for combining some seriously intelligent breakbeat/electronica with elements of cinematic permutations. 'Blue Rush' meanders around the place with glorious abandon, yet somehow (with major anarchic attitude) blends it all together with apparent ease. Vocal samples and general mayhem feature heavily on all three tracks supplied, and manage to work a treat. Commercially, it's unclear what the intention is here; Matt needs to consider making the tracks more accessible if he wants to take that route. But, that said, there's certainly a captivating personality at work on this CD, so maybe he'd be better off retaining that. It's always a tricky one, but we rather suspect that Urban Lung have their sights set on visions beyond the instant record deal. Or is that just us?

More from: dbooma@hotmail.com

demo of the month

Luke: Good-quality electronica. Takes you on a real journey. Nice cinematic qualities would make this a good choice for an independent film, or one of the cooler PC games. Nice to see that people still want to make electronic music with a more epic feel without depending on the usual 'breakdowns' for dramatic effect. Send to Mute or Warp – if you dare.

Stu: Suitable for people who like poetry, the Clangers and lying around in their bedroom in the dark listening to ethereal music. Passable. So I'll pass.

Sil: This is a track full of contradictions. Even though it does not actually go anywhere, it manages to keep you happily drifting along for its full six minutes. Although the track rockets along like an express train, this doesn't actually stop it from being completely blissed-out from start to finish.

TM: In parts cleverly-arranged, this recording layers drum 'n' bass fusion with modestly hypnotic electro to create an underlying urban feel. The interesting hybrid of Vangelis notation and spatial feel coupled with a performance worthy of early Kraftwerk automation makes you feel you are travelling through time, backwards.

G. VASQUEZ WANT SOME?



TM: Austrian lunatic G. Vasquez won't let us in when it comes to the gear he uses. "It's my little secret", he says. What he does admit to is using an abundance of samples from *The Mix*'s very own cover CD. That's what we like to hear. And hearing is believing for this guy; he's got a kind of weird industrial-meets-hardcore vibe going on, and although there are numerous elements happening throughout the demo, they all sit comfortably in the mix. 'X(Burn!)' combines guitars that Kurt Cobain would die for (doh!) with maniac drum track – beautifully scary. Which pretty much sums the bizarre Mr. G. Vasquez (get a proper name, too).

Luke: My personal fave of the bunch: echoes of Junkie XL, and nice and dirty. Doesn't sound quite finished at this point, though – chuck in some more analogue and really fuck it up!

Stu: Yeah, massive! Nice and nasty. This is one of my favourite tunes of all I've reviewed. Again, the voracious games market seems a good bet, but you could think about shopping this around to distributors.

Sil: More up and Atom, with full fret aggression on collision with Led Zeppelin, unfortunate the actual recording sounds like Rage Against The Machine playing in a box. That said, song-wise, it's still one of the best of this particular clutch.

More from: Kallisti Management Tel +43 1 749 27 84

DAVE WOOLRICH EVERYTHING TO ME



TM: Although a bright orange CD cover does no good on a bleary Monday morning, it's certainly an attention-grabber. As is the solitary track, 'Everything To Me' supplied here. It's trancey in intent, but also blurs into slightly cheesy

house (a new piano sound might be in order). And work on the song structure. In fairness to Dave, he's got minimal kit (all based around a PC and AWE64 soundcard). He's got a grasp on the style he seems to want to achieve, albeit slightly convoluted. Trance has a short shelf-life, but Dave avoids the usual clichés, fortunately. So, with a little more honing, he might just get there.

Luke: A mix of early Balearic and Italian piano makes this likely for commercial success. Not much soul, though, and it would probably benefit from a remix to toughen it up.

Stu: Enjoyable dreamy, holiday dance tune. Its hooks are not in the first division with, say, ATB; it's a bit fussy sometimes but could do with more detailing at other times. Liked it, though. How about punting it to CD Pool and to games companies?

Sil: Well-recorded and programmed arrangement, although slightly dated. Needs a more killer vocal top line to grab the attention.

More from: Dave Woolrich Tel: 07990 504467

GINO TONICO LA VOCE DEL CAMPIONE



TM: Yet another producer/composer who's come from a DJing background. It really is the new rock'n'roll ain't it? Anyway, some fare well in the arena and some miss the point a bit. Fortunately for Italian

rapscallion Gino, he falls into the former category. But only just. There are some cool ideas going on here (Italian rapping notwithstanding), and it's all quite stylishly done. Sadly, it's all a bit disjointed. Elements of r'n'b, funk, and hip hop are all thrown into the equation. But, where Urban Dance Squad get away with it by the skin of their teeth, Gino Tonico comes out sounding simply confused. But, he does demonstrate a vaguely ironic edge with the sultry (and expertly produced) 'Assicurazione', and there's a certain endearing cohesiveness to the whole affair – just not quite enough to get it noticed. Yet.

Luke: Spooky trekkie trance. Good ideas, but it needs to be developed a lot further.

Stu: I have absolutely no idea why anyone would make this music or how they decide what to play in it. I mean, carry on by all means, but just don't bring it around here, OK?

Sil: The eerie linger of this interesting short recording inspires a very realistic sense of atmosphere, not unlike being underwater at some European political rally.

No contact details supplied

HOTANDSTRIPEY DOMESTIC ECLECTIC DISCO CENTRE



TM: Bloody pretentious name. And title. And attitude. Which could work if the music was up to scratch. Don't get me wrong (or attempt to clobber me with a cricket bat), Mr. Hotandstripey knows his stuff; possibly too well, and there

are simply too many elements and influences vying for space in this maniac mix of genres. Hectic can work, but not when it's for its own sake. Calm down, and take your time, matey. There's a DJ crying to get out here, and that avenue (or possibly the remixing route) could prove potentially lucrative for the crew. In terms of producing, Hotandstripey need to sit back and take stock of what they want to achieve, both sonically (because it's a bit lacking), and in terms of style (because it's, er, a bit lacking), if they are serious about grabbing some attention.

Luke: Somebody likes their Orbital, don't they? Bit confused, this one, and I couldn't decide if it was progressive trance, trance, ambient... oh, I give up.

Stu: Pretty good bassline but I didn't like this particular blend of real instruments and electronics, and I thought the mix was unforgiving. Not for me.

Sil: The sounds of dated synth pop have hopefully had their day. 'Nuff said.

More from: joe@hotandstripey.co.uk

a&r checklist

We receive a mountain of tapes every month, so to maximise your chances of having your demo reviewed (and, if you're really good, getting on *The Mix* CD) we need you to provide the following:

- (a) Decent quality cassettes, (preferably chrome type II), CD or DAT.
- (b) A kit list of the gear used to produce the demo.
- (c) A biography of the act. We want to know all about you!
- (d) Artwork. This can be a picture of the act, or maybe a groovy graphic.
- (e) Lastly, and most important of all, send us extremely cool music that genuinely deserves to be going places. Not too much to ask, is it?

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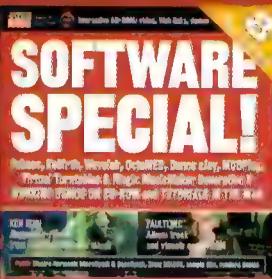
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Turnkey

The Birthplace of Recording for Musicians

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OPENING HOURS



ZERO%



Turnkey's marketing department have been caught at it again! As if our lowest prices guarantee⁴ wasn't enough, we'll be giving away free gear with every telephone order over £150 until the end of the year!

Take your pick⁵ from £25 worth of ProTech oxygen free cables, £20 of Quantegy DAT tapes, Rave or Dance E-Jay Software (normally £29), a 35mm sports camera, or even a highly tasteful Turnkey t-shirt!

So why not liven up Christmas for yourself or someone you know with a treat from Turnkey. With one of our special Christmas deals, you'll have every excuse to lock yourself away from

Gone With The Wind and The Wizard of Oz! Our dedicated mail order department will computer track your order from receipt to despatch by 24 hour courier delivery service (we even offer a £3.99 postal service for low value & weight non urgent items).

If you don't see what you want on the following pages then give us a call - we can supply virtually any music related product from harmonicas to home pianos and guitars to hurdy-gurdies! Our trained sales consultants will be pleased to advise you on all your needs. So make some music this Christmas with a gift from Turnkey, we're sure to have something to suit!

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Christmas Demo Days

To help you make your buying decisions over Christmas, we've enlisted the help of the manufacturers' own expert demonstrators. They'll be on hand every Saturday until the end of December to answer all your questions and demonstrate the latest gear. Check out the schedule below for details:

Sat 4th Dec Cubase, Rebirth, WaveLab & Plugins, Digitech Talker, Vocalsists, 5100 & 200, DBX 266XL, Quantum Finisher

Sat 11th Dec Cakewalk V9, Gadget Labs Wave 8/24, MaxiAids, Finale, CS6X, Red Sounds Voyager Pro and.

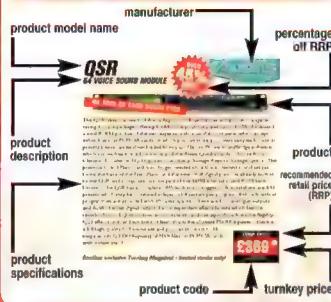
YAMAHA LAUNCH NEW SAMPLE RANGER

Sat 18th Dec Sibelius Scoring for Windows, Emagic Logic Silver, Gold & Platinum, Alessi Effects, Line 6 Pod, Native Instruments Reaktor, Korg Stellar, Nemey's Gigasampler.

Plus of course, as exclusive UK agents for Quasimidi, we'll also have a Quasimidi specialist on hand every Saturday!

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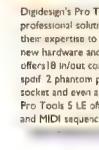
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BITH-UNIDS1U

BLACK & WHITES SOFTWARE PIANO MODULE



A stellar collection of acoustic and electric pianos, including all new 7' and 9' Steinway concert grands. Multiple variations of each instruments to include different velocities, various reverbs and other effects, and combination instruments like the addition of lush strings swelling up behind the 9' Steinway. If you're tired of the blandness of your current piano sounds then Black & Whites will give you the extra oomph and richness you need for outstanding performance or composition.

FACTORY DIRECT
£129
BITH-BW&W

OSMOSIS SAMPLE CONVERTOR



The ultimate sample conversion tool. This software enables you to take AKAI S1000 and S3000 format samples and convert them into Unity DS-1, AIFF, Sound Designer II, or SampleCell format. Ideal companion for SampleCell or Unity owners and people who work with samples in different formats. Simply put an AKAI CD-ROM in your drive, and import the samples. How easy is that?

FACTORY DIRECT
£99
BITH-OSMOSIS

VOODOO SOFTWARE DRUM MACHINE



Ever wished that you could create your own drum kits using real samples without the hassle or expense of hardware samplers? Voodoo turns your computer into a programmable 'beat box' that plays samples and MIDI files. Samples and drum patterns can be triggered from a computer keyboard, a MIDI controller, or a sequencer running on the same CPU. Comes with hundreds of patterns and samples to give you creative

FACTORY DIRECT
£129
BITH-VOODOOMA

REAKTOR SOUND GENERATION MACHINE

Reaktor 2.0 is a new milestone in synthesiser and sampling development. An amazing piece of software that transforms your PC or Mac into a professional fully featured synthesiser and sampler without the need for additional DSP hardware.

For pure sound creation uniting synthesis, sampling and effects processing then Reaktor is unparalleled. Combining the power of both Generator and Transformator in a single dazzling package the potential of Reaktor is inexhaustible. Build synth engines powered by samples, cross formant filters with oscillators and modulators.

Must be seen to be believed!

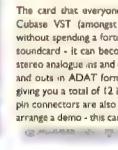
TRANSFORMATOR MODULAR SAMPLER



Taking the essence of Generator into the sampling world Native Instruments have created the worlds first modular sampler. Its granular technology opens up possibilities for processing audio material that have so far not been available in real time. Change modulations, impose pitches, bend formants, synchronizing loops are just some of the features of this staggering new piece of software.

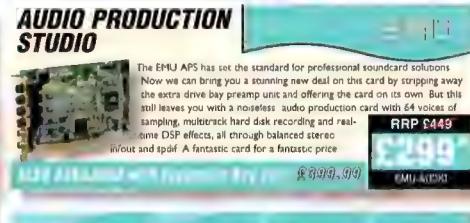
RRP £129
NATI-TRANSPO

1212 I/O PCI AUDIO CARD



This is what everyone's been waiting for! Now you can use Cubase VST (amongst others), and have multiple inputs and outputs, without spending a fortune! But the PCI 1212 I/O is far more than just a soundcard - it can become the very heart of your studio. There are stereo inputs and outputs, S/PDIF and coaxial digital inputs and outputs, ADAT format. All cards can be used independently giving you a total of 12 in and out! Word clock and ADAT 9 pin connectors are also provided. Call for more details or to arrange a demo - this card could change your recording life!

RRP £299
KORG-1212PCI



RRP £449
EMU-AE99

RRP £449
EMU-AE99

RRP £399
MOTU-MIDI1XT

RRP £399
OPCODE-STU128X

EUROPE'S LOWEST



DPS12 4HD+ DIGITAL MULTITRACKER



No-nonsense 12 track (uncompressed) digital recording and mixing all in one! Recording directly to its built-in 4GB hard drive, the DPS12 is as easy as tape, but with the advantages of waveform editing, MIDI automatable mixing, & built-in FX. Also features jog/shuttle wheel, 256 undo levels, 20 channels at mix, SCSI interface, & digital I/O.

RRP £999
ZERO%
AKAI-DPS12

In stock now at Turnkey!

ADAT LX20 20 BIT DIGITAL 8 TRACK

The best stand alone tape based digital multitracker you can buy! Why? Because it costs less than all the others. It offers linear 20 bit recording 120dB dynamic range in the digital domain. It has ADAT digital output - the industry standard for 8 channels. The remote is not an optional extra and you've permanently stored the equivalent of over 2.6GB data on a common S-VHS tape, which won't get wiped if you press the wrong button!

BUY WITH 10 x QUANTITY / 50 min DATS - ONLY £129.99 EXTRA!

FD4 DIGITAL MULTITRACKER

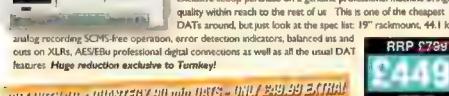
This 4 track non-linear hard disk recorder with jog shuttle editing has a built in 4 mixer with 2 balanced XLR in: inputs with inserts, plus 3 band sweep mid EQ and 2 auxes on all 4 channels. Both stereo aux returns and the 2 stereo line inputs give you up to 12 inputs for mixdown with your sequenced sound modules etc. The FD4 generates MIDI Time Code or Clock and Song Position Pointers, so your sequencers run in sync with audio recorded on the multitrack. The FD4 works at native 44.1kHz so it can plug directly into a CD recorder, via S/PDIF. Price includes built in 2.1 Gig HD

analog recording SCSI-free operation, error detection indicators, balanced ins and outs on XLRs, AES/EBU professional digital connections as well as the usual DAT features. Huge reduction exclusive to Turnkey!

BUY WITH 10 x QUANTITY / 50 min DATS - ONLY £129.99 EXTRA!

D5 DAT RECORDER

OVER 40% OFF!

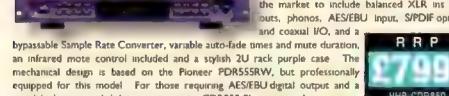


Exclusive scoop purchase on a genuine professional machine brings quality within reach to the rest of us. This is one of the cheapest DAT's around, but just look at the spec list: 19" rackmount, 44.1 kHz analog recording SCSI-free operation, error detection indicators, balanced ins and outs on XLRs, AES/EBU professional digital connections as well as the usual DAT features. Huge reduction exclusive to Turnkey!

BUY WITH 10 x QUANTITY / 50 min DATS - ONLY £129.99 EXTRA!

CDR850 PROFESSIONAL CD-RW

INC 100 BLANK CDRW FREE!

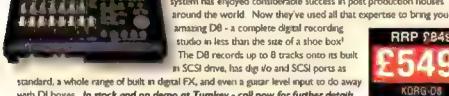


The cheapest professional rewritable CDRW on the market to include balanced XLR ins and outs, phono, AES/EBU input, S/PDIF optical and coaxial I/O, and a bypassable Sample Rate Converter, variable auto-fade times and mute duration, an infrared remote control included and a stylish 2U rack purple case. The mechanical design is based on the Pioneer PD555SRW, but professionally equipped for this model! For those requiring AES/EBU digital outputs and a wordclock input, a slightly more expensive CDR850 Plus version also exists

BUY WITH 20 x QUANTITY / 50 min TAPES - ONLY £229.99 EXTRA!

D8 DIGITAL WORKSTATION

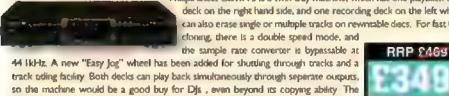
OVER 35% OFF!



For the last few years, Korg's high end Soundlink hard disk recording system has enjoyed considerable success in post production facilities around the world. Now they've used all that expertise to bring you the amazing D8 - a complete digital recording studio in less than the size of a shoe box! The D8 records up to 8 tracks onto its SCSI drive, has dig I/O and SCSI ports as standard, a whole range of built in digital FX, and even a guitar level input to do away with DI boxes. In stock and on demo at Turnkey - call now for further details.

CDR775 TWIN TRAY CD-RW WRITER

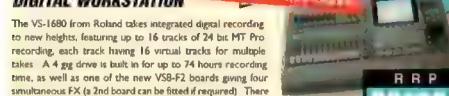
NEW



Philips based CDR775 is a twin tray machine, which has one playback only deck on the right hand side and one recording deck on the left which can also erase single or multiple tracks on rewritable discs. For fast CD changing, there is a double speed mode, and the sample rate converter is bypassable at 44 kHz. A new "Easy Jog" wheel has been added for shuffling through tracks and a track scaling facility. Both decks can play back simultaneously through separate outputs, so the machine would be a good buy for DJs, even beyond its playback ability. The playback deck can also play unfinalised CDR discs. Includes infrared remote control.

VS-1680EX DIGITAL WORKSTATION

INC FREE 80 min DATS

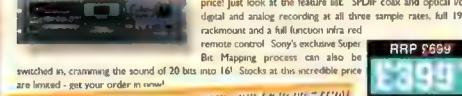


The VS-1680 from Roland takes integrated digital recording to new heights, featuring up to 16 tracks of 24 bit/MT Pro audio quality, each track having 16 virtual tracks for multiple takes. A 4 gig drive is built in for up to 74 hours recording time, as well as one of the new VSP-F2 boards (giving four simultaneous FX) (2nd board can be fitted if required). There are 10 audio inputs including 2 balanced XLRs and 12 inputs, a SCSI port is standard and CD writing software is built in. 3 band parametric EQ is easily edited via the huge LCD display. In stock now at Turnkey!

Buy with 10 x QUANTITY / 50 min DATS - ONLY £129.99 EXTRA!

PCM-R300 DAT RECORDER

INC 15% OFF!



A pro, full spec DAT machine at a bargain price! Just look at the feature list: S/PDIF coax and optical I/O, digital and analog recording at all three sample rates, full 19" rackmount and a full function infra red remote control. Sony's exclusive Super Bit Mapping process can also be switched in, cramping the sound of 20 bits into 16! Stock at this incredible price are limited - get your order in now!

BUY WITH 10 x QUANTITY / 50 min DATS - ONLY £129.99 EXTRA!

DA20MKII DAT MACHINE

The new MKII version of the DA20 builds on what's already a quality machine: reliable tray-loading mechanism, switchable SCMS, analog and digital recording at all 3 sample rates and coax S/PDIF I/O. New features include error counting & adjustable ID encoding

BUY WITH 10 x QUANTITY / 50 min DATS - ONLY £129.99 EXTRA!

202MKIII DOUBLE TAPE DECK

Fantastic deal on Tascam's superb professional quality mastering cassette deck. Full 19" rackmount unit, the 202 MKIII is a double deck, which records on both decks. Ideal for mastering and duplication. Limited stocks only at this price.

BUY WITH 20 x QUANTITY / 50 min TAPES - ONLY £229.99 EXTRA!

MZ-R37 PORTABLE MINIDISK RECORDER

Now available is this compact portable version of the MDS-J520 as featured above. Price includes headphones and power supply. This must be the neatest walkman you've ever seen!

BUY WITH 20 x MAXELL 74 min MDS - ONLY £129.99 EXTRA!

DAP1 PORTABLE DAT

Pro spec portable DAT from Tascam features a rugged 2 head 2 motor direct drive transport, XLR mic inputs with phantom power, 20dB pad and limiter, S/PDIF digital I/O, analogue and digital recording at all three sample rates, as well as SCMS free operation. Ideal for field recording applications

BUY WITH 10 x QUANTITY / 50 min DATS - ONLY £129.99 EXTRA!

MD301 PRO MINIDISK RECORDER

The Tascam MD301 is a MiniDisk recorder in a professional 2U rackcase, and features phones and coaxial S/PDIF interfacing for quick, easy hookup. The MiniDisk format runs at 44.1kHz and as such, the MD301 includes a built in sample rate converter to accept 48kHz or 32kHz digital sources. There is an infrared remote control and front panel headphone socket!

Incredible reduction exclusive to Turnkey - order now while stocks last!

PORTA 414 CASSETTE PORTASTUDIO

The 414 records up to 4 tracks simultaneously and uses dbx noise reduction. Double speed recording for better bandwidth, 2 band EQ, 4 mic inputs and full LED metering make it a great value for money. The cassette deck is optimised for chrome tapes but will give great results with metal tapes too, and you can even switch it to normal speed to play your regular tapes. The pitch bend gives you about 20% speed variation, and for backwards recording just turn the tape over. Includes free four track pack!

BUY WITH 20 x QUANTITY / 50 min TAPES - ONLY £229.99 EXTRA!

PORTA 424 MKIII MULTITRACK RECORDER

Tascam's newest upgrade to their range of Portastudio's is the 424 MKIII with its nice blue face. It offers a 8 channel mixer with mic inputs, 3 band sweep mid EQ, two effects sends and the transport runs at normal or double speed with dbx noise reduction and can record 4 tracks simultaneously

BUY WITH 10 x QUANTITY / 50 min TAPES - ONLY £129.99 EXTRA!

MD8 DIGITAL WORKSTATION

If you thought 4 tracks on MiniDisk was good - check out the new 8 track Yamaha MD8. There are 8 mic / line inputs (2 with XLRs and insert points), 3 band mid sweep EQ, 2 aux sends and a jog / shuttle wheel. There are up to 20 inputs available at mixdown, so there's plenty of room for synth and sampler output, whilst the latest ATRAC compression algorithm means the sound is virtually indistinguishable from DAT. This hot product is in short supply - call us now to reserve yours!

BUY WITH 10 x QUANTITY / 50 min TAPES - ONLY £129.99 EXTRA!

MD4S MINIDISK 4-TRACKER

This MiniDisk Four-tracker offers jog / shuttle music cueing between 32x and half speed, some basic non-linear cut and paste editing, multi take and punch-in, and can fast play 37 mins of 4-track or 74 mins of stereo via MiniDisk's ATRAC lossy compression. Varispeed, 8 channel mixers, two mic inputs, 4x EQ & 2 auxes

BUY WITH 10 x QUANTITY / 50 min TAPES - ONLY £129.99 EXTRA!

NEW

YAMAHA MD8

YAMA-MD8

YAMA-MD4S

YAMA-MD4

YAMA-MD4S

YAMA-MT50

YAMA-MT400

PRICES GUARANTEE*



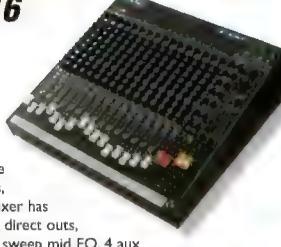
GET IN THE MIX!

FOLIO NOTEPAD 10 INPUT UTILITY MIXER



For quality mixing on a budget, this has to be the neatest solution around. Typical Soundcraft quality has been further enhanced by the use of surface mount technology and custom designed rotary pots. 4 mono inputs are provided along with 2 stereo, which also feature RIAA preamps for record deck connection. 2 band EQ and an auxiliary send complete a highly flexible package.

FOLIO FX8/16 MIXERS WITH FX

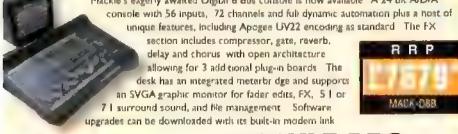


A superb quality Lexicon multi-effects unit, with a fantastic Spirit by Soundcraft mixer thrown in free! The Lexicon DSP gives editable reverbs, delays and chorus, whilst the 16:4 channel mixer has XLR + jack inputs, inserts, direct outs, UltraMic preamps, 3 band sweep mid EQ, 4 aux sends, solo in place, and 100mm Alps faders. The FX8 is the smaller version with fewer inputs, but the same long throw faders and high quality circuitry, giving Spirit's warm dynamic sound.

RRP £140
£149⁹⁹
SCRA-FOLNOTE

RRP £399
SCRA-FX8.16

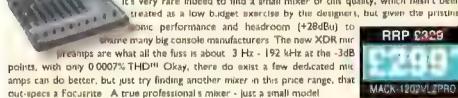
D8B DIGITAL 8 BUS CONSOLE



Mackie's eagerly awaited Digital 8 Bus console is now available. A 24 bit A/D/A console with 56 inputs, 72 channels and full dynamic automation plus a host of unique features, including Apple UV22 encoding as the FX section includes compressor, gate, reverb, delay and chorus with open architecture allowing for 3 add-on plug-in boards. The desk has an integrated hard disk and supports an SVGA graphics monitor for fader editing, FX, 5.1 or 7.1 surround sound, and file management. Software upgrades can be downloaded with its built-in modem link.

RRP £1799
SCRA-D8B

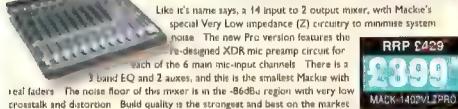
1202VLZ PRO MIXER



It's very rare indeed to find a small mixer of this quality, which hasn't been treated as a low budget exercise by the designers, but given the pristine sonic performance and headroom (+28dBu) to spare many big console manufacturers. The new XDR mix preamps are what the fuss is about. 3 Hz - 192 kHz at the 3dB points, with only 0.0007% THD! Okay, there do exist a few dedicated mixamps can do better, but just try finding another mixer in this price range, that out-sells a Focusrite. A true professional's mixer - just a small model!

RRP £329
£299⁹⁹
MACK-1202VLZPRO

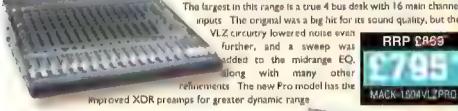
1402VLZ PRO MIXER



Like its name says, a 14 input to 2 output mixer, with Mackie's special Very Low Impedance (2) circuitry to minimize system noise. The new Pro version features the re-designed XDR mic preamp circuit for each of the 6 mic input channels. There is a 3 band EQ and 2 auxes, and this is the smallest Mackie with real faders. The noise floor of this mixer is in the -86dBu region with very low crosstalk and distortion. Build quality is the strongest and best on the market.

RRP £429
£399⁹⁹
MACK-1402VLZPRO

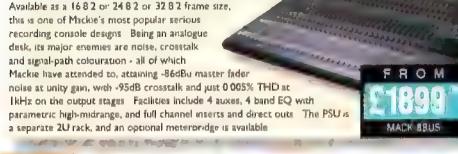
1604VLZ PRO MIXER



The largest in this range is a true 4 bus desk with 16 main channel inputs. The original was a big hit for its sound quality, but the VLZ circuitry lowered noise even further, and a sweep was added to the midrange EQ, along with many other refinements. The new Pro model has the improved XDR preamps for greater dynamic range.

RRP £689
£795⁹⁹
MACK-1604VLZPRO

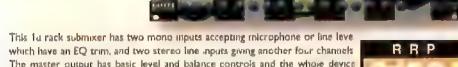
8-BUS RECORDING CONSOLE



Available as a 16:8:2 or 24:8:2 or 32:8:2 frame size, this is one of Mackie's most popular serious recording console designs. Being an analogue desk, its major enemies are noise, crosstalk and signal-path colouration - all of which Mackie have attended to, attaining -95dBu master fader noise at unity gain, with -95dB crosstalk and just 0.05% THD at 1kHz on the output stages. Features include 4 auxes, 4 band EQ with parametric high/midrange, and full channel inserts and direct outs. The PSU is a separate 12V rack, and an optional metroridge is available.

FROM
£1899⁹⁹
MACK-8BUS

NEW MLM-62 MIC / LINE MIXER 6:2



This 14 rack submixer has two mono inputs accepting microphone or line level which have an EQ trim, and two stereo line inputs giving another four channels. The master output has basic level and balance controls and the whole device operates therefore as a 2:2 mixer with unbalanced patch connections at a nominal -10dBV operating level. Suitable for keyboard submixing, or using DI instruments such as electroacoustic guitar etc.

RRP £139⁹⁹
MAM-MLM62

FOLIO F1 14 & 16 INPUT STEREO MIXERS

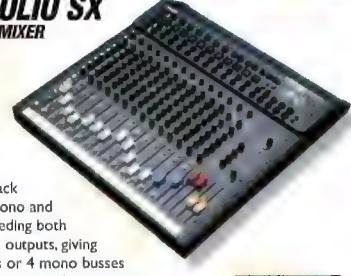
The most affordable small project studio mixer in the Spirit range for serious 8 track applications, available in two frame sizes offering a total of 14 or 16 inputs, with either 6 or 8 main mono channels with mic preamps, inserts, and 3 band EQ with sweep mids. The remaining stereo channel pairs have 2 band EQ but all share the 3 aux sends and long throw 100mm faders. Both mixers may be rackmounted with the optional £19.99 rack ears, but they include Spirit's very handy built in handle for great portability.



RRP £379⁹⁹
£269⁹⁹
SCRA-FOLFI14.16

SPIRIT FOLIO SX 16:4 PORTABLE MIXER

A great mixer which would suit both live sound applications and a small project studio for multitrack monitoring. 12 mono and 2 stereo inputs feeding both main and sub L+R outputs, giving you 2 stereo pairs or 4 mono busses depending how you pan and route your channels. 3 bands sweep mid EQ, HPF, inserts, direct outs, 3 auxes, 100mm faders & integral handle.



RRP £479⁹⁹
£449⁹⁹
SCRA-FOLSX

02R UNITY DEAL DIGITAL MIXER PACKAGE

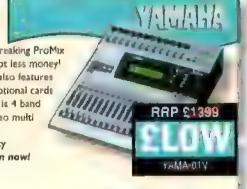
The fully digital 40 input 8 bus console with total automation and moving faders, 4 band parametric EQ and dynamics for every input and 2 comprehensive on-board fx processors with a range of reverb, delay and other standard fx. Optional interface cards allow full digital connection of ADAT, T-DIF or AES/EBU and AES/EBU formats for integration of MTR and hard disk systems.



RRP £799⁹⁹
£4799⁹⁹
YAMA-02R

01V DIGITAL MIXER

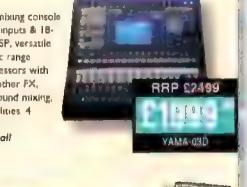
Yamaha's fabulous new 01V replaces the ground breaking ProMix 01, and is basically a stripped down 03D, for far less money! As well as a striking new silver paint job, the 01V also features 16 analogue inputs plus 8 digital ins and outs via optional cards in either ADAT, T-DIF or AES/EBU format. There is 4 band fully parametric EQ for all the main inputs, 2 stereo multi effects processors, moving faders, dynamic MIDI automation, and of course, exemplary sound quality. Initial stocks are very limited - get your order in now!



RRP £1399⁹⁹
£1299⁹⁹
YAMA-01V

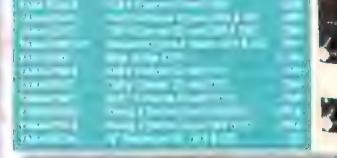
03D DIGITAL CONSOLE

Like the 02R, the 03D is a fully-automated digital mixing console but adds remote control for ease of use. With 26 inputs & 18 outputs the console features fast 32-bit internal DSP, versatile analog and digital I/O configuration, 112dB dynamic range converters, dual 32-bit onboard multi-effects processors with reverb, delay, chorus, flanger, and other FX, motorized faders which can be grouped, 5.1 surround mixing, even onboard automation, MIDI remote compatibility, 4 band EQ + dynamics on all channels, etc, etc. Call now for a Turnkey brochure and a free trial!



RRP £2499⁹⁹
£1999⁹⁹
YAMA-03D

ACCESSORIES



RRP £329⁹⁹
£249⁹⁹
YAMA-MX12/4

POWERSTATION 600 POWERED MIXER

Powerstation 600's built in amp drivers load up to a 300W per channel and 8Ω loads to 175W per channel. The 102 mixer includes a stereo 7 band graphic equaliser, built in Lexicon digital effects with 16 types, covered reverb, chorus, delay etc. Each of 2 programme pads. There are 8 mono channels and 2 stereo channels along with the stereo tape return. Channel strip includes Spirit's high quality mic preamp, EQ, auxes, pan, PH, etc. Case has side carrying handles.



RRP £940
£749⁹⁹
SCRA-POW600

HOST CONSOLES



Spirit's popular Ghost is a great choice for live sound, and analogue 8 track recording studios. The Ghost is also available in MIDI automated versions.

RRP £4617⁹⁹
£799⁹⁹
SCRA-GHOST8L
RRP £6997⁹⁹
£2199⁹⁹
SCRA-GHOST32

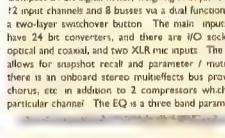
SPIRIT STUDIO 8 BUS IN-LINE MIXER



4 band EQ, 6 auxes - brings sound quality and features to breakthrough price - now even less!

RRP £1537⁹⁹
£1299⁹⁹
SCRA-SPIST816
RRP £2063⁹⁹
£1999⁹⁹
SCRA-SPIST24
RRP £2894⁹⁹
£1999⁹⁹
SCRA-SPIST32

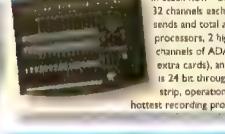
VM-3100 DIGITAL 12:8:2 MIXER



Compact 24 bit digital mixer, weighing in at just 3.5kg, offering 12 input channels and 8 buses via a dual function slider with a two-layer switcher button. The main inputs and outputs have 24 bit converters, and there are 16 I/O sockets for S/PDIF optical and coaxial, and two XLR inputs. There is also a full MIDI control allows for complete recall and parameter / fader automation, and there is an onboard stereo multi-effects box providing reverb, delay, chorus, etc. in addition to 2 compressors which may each be selected for a particular channel. The EQ is a three band parametric on every input channel.

RRP £699⁹⁹
SCRA-VM3100

DIGITAL 328 DIGITAL MIXING CONSOLE



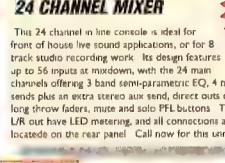
In stock now - the incredible Spirit Digital 328. Not only do you get 32 channels each with moving faders, 3 band fully parametric EQ, 6 aux sends and total automation, but there's also a built in Lexicon effects processor, 24 bit quality dynamics units, 16 channels of ADAT & T-DIF I/Os (no need for extra cards), and on top of all this, the desk is 24 bit throughout and with the superb E-strip, operation couldn't be simpler. The hottest recording product of the year!

RRP £2499⁹⁹
£2599⁹⁹
SCRA-SPR328

"I look forward to your prices every month in Sound on Sound"

T.D. (Leeds)

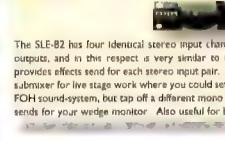
M1624 24 CHANNEL MIXER



This 24 channel in-line console is ideal for front of house live sound applications, or for 8 track studio recording work. Its design features up to 56 inputs at 16 channels, with 24 channels of balanced analog I/O, 16 digital I/O, 4 mono aux send plus an extra stereo aux send, direct outs on all channels, long throw faders, mute and solo PFL buttons. The 8 buses and L/R out have LED metering, and all connections are compactly located on the rear panel. Call now for this irresistible deal!

RRP £1699⁹⁹
£699⁹⁹
TASCAM-M1624

NEW SLE-82 STEREO LINE MIXER 8:2



The SLE-82 has four identical stereo input channels feeding the master stereo outputs, and in this respect, is very similar to the SLM-82, but it additionally provides effects send for each stereo input pair. This makes it a useful keyboard submixer for stage work where you could set up your main stereo mix to the FOH sound-system, but tap off a different mono mix of your own on the effects send for your wedge monitor. Also useful for background music distribution.

RRP £98⁹⁹
£98⁹⁹
TASCAM-SLE82

MX12/4 MIXING CONSOLE



The stylish MX12/4 is beautifully laid out for ease of use. It features a 7 band EQ which affects the main output, 3 band EQ on each channel and a wonderfully easy to use digital effects unit. Superb for live or studio situations. The 4 bus configuration is invaluable in such a small mixer.

RRP £399⁹⁹
£329⁹⁹
YAMA-MX12/4

Turnkey 0171 419 9999

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Fax: 0171 379 0093 114-116 Charing Cross Road London WC2H 0DT WC2H 0DT Web site: www.turnkey.uk.com In Eire Call: 01677 9377 Other offers may not be available when price matching. We must be able to substantiate the quote and the goods must be available and in stock.

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Prices & offers are valid for a limited time only. A small number of lots & items in stock may be as may be available for mail order on the internet or in press adverts such as this.

PRICES GUARANTEE*



NEW

RFX-300 DESKTOP MULTI-EFFECTS STATION



For a very small and very low cost effects box, the Zoom RFX300 has some impressively big ideas of what it can offer your effects-processing arsenal. The 22 presets cover the usual effects one would expect, but offer more unusual cabinet simulators, stereo width enhancers and a "Vocal Mix" effect to actually lift the vocals perceived volume from within a composite stereo mix. Similarly, the "Mic Simulator" is designed to impart the presence and detail of an expensive studio condenser to any dynamic mic input you feed in, through the built in mic preamp. Considering the cost of TDM plug-ins which attempt these tasks, the RFX300 is clearly worth a close look.

ZOOM IN!

RRP £109
ZOOM-RFX300

RFX-1000 MULTI-EFFECTS RACK UNIT



The RFX1000 is similar to the RFX2000 below, but with analogue connections only. It has a similar range of different effects types across 33 different algorithms, in three different banks - reverb, effects, and Mix + SFX. The reverb time and reverb character each have parameter control knobs, alongside the standard Input / Output levels and wet / dry mix. The vocal optimised effects found on the RFX300 are also here and there is a mic-input on the front panel to suit high impedance dynamic mics.

RFX-2000 MULTI-EFFECTS RACK UNIT



The RFX-2000 is the top of the range in Zoom's new multieffects lineup, and perhaps defines what we should come to expect from a budget effects unit as we near the end of the 20th century - digital output as standard! Hooray! At last the clarity of those reverb algorithms and 24 bit internal DSP that are advertised, can be transferred intact to your recordings. Eight variations each of six different effects groups are presented, covering reverbs, delay, pitch-based effects like flange, chorus etc, and assorted special processes like a Vocoder (with mic input), Ring Modulator, Time Trip, Dimension, Isolator, Comb, Step Cry, Resonance and many others. There are pre-defined parameter control knobs, and the unit is MIDI addressable. The RFX2000 comes with a CD-ROM containing patch editing software for PC or Mac, which also includes an extra effects bank.

FILTER FACTORY ANALOG HIGH ORDER FILTER



MIDI controllable stereo resonant filter with 1100+ filter and filterbank switchable RIAA input filter banks as stereo
12dB/oct (2nd order) or mono 24dB/oct (4th order) HPF, LPF, BPF or notch - LFO controller section includes tap tempo to easily match sweeps to your music. The "Buzz" section engages a controllable distortion effect, and the main outputs have FX wet/dry mix.



GM400 MULTI-EFFECTS PROCESSOR

A comprehensive digital signal processor from legendary designers Oberheim. Processors include basic, solid state

preamping before A/D conversion and then 24 bit processing of compression, EQ, noise gating, distortion and various time domain and modulation effects, including some beautiful reverbs, swirling choruses, and grating flanges. True stereo processing, a steerable display, easy editing and exemplary sound quality complete a package which would be good value at twice the money - never mind at this incredible factory direct price! Exclusively available at Turnkey.

Exclusively available at Turnkey.

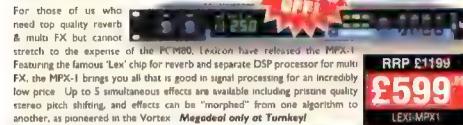
GM1000 MULTI-EFFECTS PROCESSOR



The GM1000 is a 24 bit processor one of the most comprehensive ranges of effects and tools for any price, providing a battery

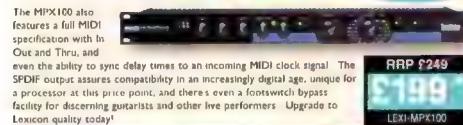
enthusiastic programmer. The effects list includes distortion, compression, EQ, noise gating, reverb, delay, chorus, flanger, phaser, amp simulator, various modulation effects. There's even a tuner and built in spectrum analyzer with freeze. The huge display, mammoth processing power and almost unending programming detail make this an amazing bargain. Exclusively available at Turnkey.

MPX1 MULTI-EFFECTS PROCESSOR



For those of us who need top quality reverb & multi FX but cannot stretch to the expense of the PCM90, Lexicon have released the MPX1. Featuring the famous 'Lex' chip for reverb and separate DSP processor for multi FX, the MPX-1 brings you all that is good in signal processing for an incredibly low price. Up to 5 simultaneous effects are available including pristine quality stereo pitch shifting, and effects can be "morphed" from one algorithm to another; as pioneered in the Vortex Megadeal only at Turnkey!

MPX 100 DIGITAL REVERB / MULTI FX



The MPX100 also features a full MIDI specification with In and Out and Thru, and even the ability to sync delay times to an incoming MIDI clock signal. The S/PDIF output assures compatibility in an increasingly digital age, unique for a processor at this price point, and there's even a footswitch bypass facility for discerning guitarists and other live performers. Upgrade to Lexicon quality today!

EFX-10 STUDIO MULTI-EFFECTS



Viscount's entry into the fully professional effects market features audio-quality and quality design by 24 bit processors with 128 over 1000 presets. Delays / Sigma converters True stereo -30/44 dB connections Realtime MIDI control, large backlit display, huge range of effects including reverbs, delays, chorus, flanging, pitch-shift, wah, phasing, Leslie simulations, etc. Unbelievable clearance price!



OVER 50% OFF!
RRP £109
£49.99
VISCO-EFX10

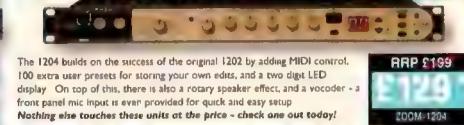
This top-of-the-line 2U reverb unit from Yamaha has pro-quality 20 bit A/D converters and 32 bit DSP chips. There are 90 factory presets and 90 user memories to choose from, with options such as early reflections, room simulation, chorus, flange, echo, compression, gating, and parametric EQ. Full MIDI spec, balanced XLR and jacks on 10dB/4dB outputs complete the picture. Incredible "polished" reverb sound gives top sound quality at this low price. Hurry - limited quantities only in stock!

RRP £1056
£499.99
YAMA-PROR3



"You provide a wonderful service" A.N. (Plymouth)

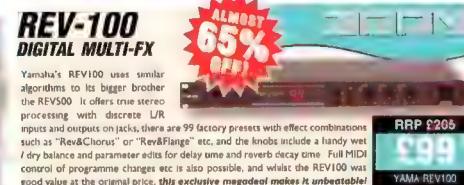
1204
TRUE STEREO FX PROCESSOR



RRP £199
£59.99
LEXI-MPK1

The 1204 builds on the success of the original 1202 by adding MIDI control, 100 extra user presets for storing your own edits, and a two digit LED display. On top of this, there is also a rotary speaker effect, and a vocoder - a front panel mic input is even provided for quick and easy setup. Nothing else touches these units at this price - check one out today!

RRP £199
£19.99
ZOOM-1204



RRP £249
£19.99
LEXI-MPK100

Yamaha's REV100 uses similar algorithms to its bigger brother the REV500. It offers a stereo processor with discrete L/R inputs and outputs on jacks, there are 99 factory presets with effect combinations such as "RevChorus", "RevFlang" etc, and the knobs include a handy wet / dry balance and parameter edits for delay time and reverb decay time. Full MIDI control of programme changes etc is also possible, and whilst the REV100 was good value at the original price, this exclusive megadeal makes it unbeatable!

RRP £205
£99
YAMA-REV100

ALESIS MIDIVERB IV



16 bit stereo digital FX + soft rubber buttons! Up to 100 effects at once, 128 preset / user Automatic level sensing and set up utility On screen Help pages describing each effect

RRP £209
£199
ALES-MIDI4

• Dual channel VCA based fully manual compressor Hard/Soft knee, Peak/RMS Additional noise gates with threshold & release Sidechain, stereo link Headroom to +2dBu

RRP £199
£109
ALES-3630

• Stereo compressor for similar 3101 Hard or soft knee compression Peak or RMS detection Separate Attack, Threshold & Release controls

RRP £99
£79
ALES-NANOCOMP

• From Aphex the inventors of the EXTECH®! Blend in extra zingy treble harmonics Bass section compressor for more impact Balanced TRS jacks

RRP £289
£149
APHEX14

• 31 band dual mono, with DSP correction of filter interaction, so curve has true smooth response and WYSIWYG

RRP £209
£299
BEHRINGER-ULTRACURVE

• 48 bit Internal Signal Data Path 4 Band Dynamics, 5 Band Parametric EQ dbx Type IV 2406 Converters With TSE Digital Signal Processor

RRP £399
£299
DBX-QUANTUM

• Digital graphic eq w/ 24 bit convolutional 31 band dual mono, with DSP correction of filter interaction, so curve has true smooth response and WYSIWYG

RRP £249
£149
DIGITECH-TALKER

• Mic or guitar input, footswitches Digitally mimics vocal sounds & FX Vocoder, Auto-wah, Delay, Drop pitch, Allen, Gated vocoder As used on Cher's vocal in the song "Believe"

RRP £249
£149
DIGITECH-VOCALIST

• Digital harmonizer with reverb XLR mic input. Adds 2 harmonies Major / minor chords adapted to key Prints allow A/B switchovers

RRP £399
£299
ELECTRIX-MO-FX

• MIDI controllable stereo vocoder with XLR mic in Switchable line or phone in With RIAA line preamp for turntables, high & low EQ Formant freeze

RRP £349
£299
ELECTRIX-WARP

• MIDI controllable effects Stereo 19" w/ bonus RIAA phone inputs for DJ Overdrive, flanger, delay Auto-pan via LFO Each channel has inserts

RRP £399
£299
LEXICON-PCM91

• Currently one of the best sounding digital reverbs money can buy AES/EBU digital I/O In-depth editing + MIDI Excels at small acoustic spaces + reverb reflections

RRP £2199
£1699
LEXI-PCM91

• Combined controls for stereo operation Multiband phase shifts Learn from programme dynamics & loudness EQ Soft/Tight bass auto compression Bass effect wide stereo expander

RRP £199
£149
SPL-VITALIZER

• Dual engine DSP for both reverbs and effects True stereo operation AES/EBU digital I/O Can mix analog + dig ins Units at this price are 'B' stock with full guarantee

RRP £499
£469
TCU-PLATINUM

• Previously the best analog compressor is a 1u rack Hard / soft knee / auto Class A compressor Photo-electric limiter Variable noise gate / exp Sidechain / stereo link Huge vols w/ inductor

RRP £499
£469
TCU-PLATINUM

• Dual engine DSP for both reverbs and effects True stereo operation AES/EBU digital I/O Can mix analog + dig ins Units at this price are 'B' stock with full guarantee

RRP £199
£149
TCU-PLATINUM

• Now supports 96kHz via double fast AES/EBU 3 band digital compression, 5 band EQ De-esser, Enhancer, Limiter, Expander Leveling, sample rate conversion

RRP £2090
£799
TC-FINALIZER

• Low cost / easy to use Multiband phase shifts Learn from programme dynamics & loudness EQ Soft/Tight bass auto compression Bass effect wide stereo expander

RRP £1199
£799
TC-FINALIZER

• Stereo digital multieffects 16 bit converters 363 patches in total covering reverb, delay, chorus, flange, pitch etc. Includes ring modulator, vocoder, distortion & lo-fi

RRP £269
£149
WALDORF-4POLE

• Stereo digital multieffects 16 bit converters 363 patches in total covering reverb, delay, chorus, flange, pitch etc. Includes ring modulator, vocoder, distortion & lo-fi

RRP £269
£149
WALDORF-4POLE

• Stereo digital multieffects 16 bit converters 363 patches in total covering reverb, delay, chorus, flange, pitch etc. Includes ring modulator, vocoder, distortion & lo-fi

RRP £269
£149
ZOOM-1201

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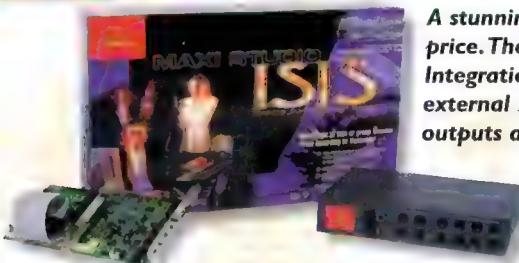
Fax: 0171 379 0893 114-116 Charing Cross Road London WC2H 0DT WC2H 0DT Web site: www.turnkey.uk.com In Eire Call: 01677 9377

Other offers may not be available when price matching. We must be able to substantiate the quote and the goods must be available and in stock.

EUROPE'S LOWEST

guillemot

NEW



MAXI ISIS MULTICHANNEL SOUNDCARD

Everything you need in one package and at this price who can argue with that!!!

- Complete Hardware/Software Solution
- 8 Independent Analogue Inputs, 4 Outs
- SPDIF Coaxial and Optical
- Logic Audio SE Included in the Box

MONITOR 2 MIDFIELD STUDIO MONITOR



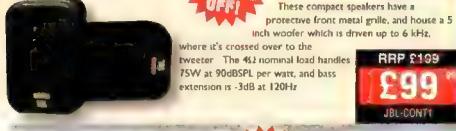
OVER
50%
OFF!

RRP £609
£329*
ALES-MON2

Buying a great pair of speakers for your home setup often involves a compromise between sound quality, cost, bass performance and portability. Now you can have it all with our stunning deal on the Alesis Monitor 2. Flat bass response down to 40Hz assisted by the substantial ported cabinets which come in a mirror image pair. The three way design with 10" woofer offers superior transparency with excellent quality reproduction across the whole frequency range. Power handling is up to 150w per speaker.

We cannot hold this offer forever - buy now before it's too late!

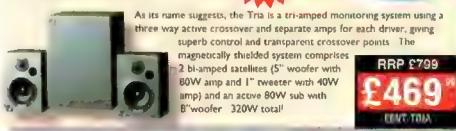
CONTROL 1 COMPACT MONITORS



ALMOST
50%
OFF!

RRP £109
£99*
JBL-CONT1

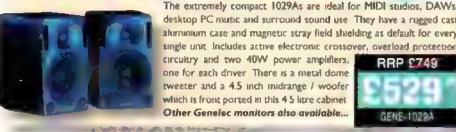
TRIA SATELLITES & SUBWOOFER



OVER
40%
OFF!

RRP £799
£469*
QENT-TRIA

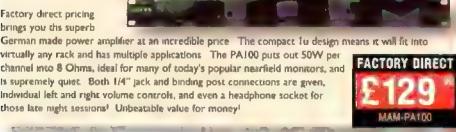
1029A BI-AMPED MINI-MONITORS



BUY WITH 10291 SUBWOOFER
FOR ONLY £749!

RRP £749
£529*
GENE-1029A

PA-100 STUDIO POWER AMP



FACTORY DIRECT
£129*
MAM-PA100

Factory direct pricing brings you the superb Genelec studio monitors at an incredible price. The compact 1u design means it will fit into virtually any rack and has multiple applications. The PA100 puts out 50W per channel into 4 Ohms, ideal for many of today's popular nearfield monitors, and is supremely quiet. Both 1/4" jack and binding post connections are given. Individual left and right volume controls, and even a headphone socket to give those late night sessions! Unbeatable value for money!

HOW MUCH?

A stunning home studio solution for a staggering price. The Maxi Studio ISIS (Interactive Sound Integration System) is a full duplex card with external 20bit converters offering 8 inputs 4 outputs and SPDIF coaxial and optical.

The external half rack box attaches to a control PCI card fitted inside the PC. The card comes with an on board GM synth with 4MB of high quality sounds with room for another 32MB with the addition of another SIMM. Fully compatible with all hard disk and MIDI software, not to mention games and multimedia and is fully DirectX compliant. Included in the box is a special version of Logic Audio offering 16 track audio, 4 effects buses and 3 EQ per track.

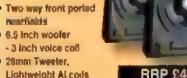
ALESIS MONITOR 1



- Small two way nearfield
- 8.5 inch woofer, soft dome tweeter
- Rear ported, 4Ω nominal load
- 60 Watts RMS, 80dB SPL per Watt

RRP £299
£249*
ALES-MON1

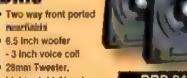
DYNAUDIO BM5



- Two way front ported nearfields
- 8.5 inch woofer
- 3 inch voice coil
- 28mm tweeter
- Lightweight Al cone
- 150Wpc, 88dB SPL per Watt
- Nominal 4Ω, 60-20K Hz

RRP £406
£399*
DUAU-BM5

DYNAUDIO BM15



- Two way front ported passive nearfields
- 10" woofer with 4" voice coil + Esotec tweeter
- 250W RMS, 92dB SPL per Watt, 4Ω nominal
- 4Ω, 70-20K Hz

RRP £799
£799*
DUAU-BM15

HHB CIRCLE 5



- Popular low cost nearfields, Pink cone
- 6 inch woofer, silk dome tweeter
- Front ported, 8Ω nominal load
- 60 Watts max, 87dB SPL per Watt
- 4Ω nominal load, -10dB in 30Hz

RRP £325
£325*
HHB-CIRCLE5

KRK K-ROK



- Two way passive nearfields
- 8.5 inch woofer, silk dome tweeter
- Front ported, 8Ω nominal load
- 60 dB SPL per Watt, -3dB at 57Hz

RRP £349
£349*
KRK-KROK

SPIRIT ABSOLUTE 4P



- Two way rear ported active nearfields
- 8.5" woofer with 1" voice coil + soft dome tweeter
- Built in 100W amp = approx 112dB SPL max
- Fourth order crossover

RRP £499
£499*
SCRA-AB4P

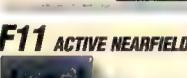
VIDEOLOGIC SIROCCO SYSTEM



- Passive subwoofer, 2 way satellites and sub
- Output 20W per channel plus 40W for the sub. Up to 100W peak at 10% THD
- Loudness + headphones out

RRP £249
£249*
VIDE-SIROCCO

YAMAHA NS10M



- Industry standard passive nearfields
- Infinite baffle enclosure
- 30W RMS at 90dB SPL per Watt, 8Ω nominal
- 7.5" woofer + Midrange/pair

RRP £389
£249*
YAMA-NS10M

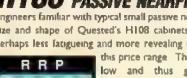
F11 ACTIVE NEARFIELDS



- Quested's most affordable self powered nearfields are the F11. A two way bass reflex enclosure with 6.5 inch woofer and active 24dB/oct crossover and bi-amped 100W + 100W power stage. The cabinet uses a polyester composite material more rigid and dense than conventional plywood or MDF, which helps to damp any nasty cabinet resonances. Amp noise is 100dB below clip with 0.03% THD (-70dB). System response offers high / low bass tweaking, and the "flat" setting is -3dB at 60Hz

RRP £1149
£1149*
QUES-F11

H108 PASSIVE NEARFIELDS



- Engineers familiar with typical small passive nearfields feel at home with the size and shape of Quested's H108 cabinets, but their superior sound is perhaps less fatiguing and more revealing than many other nearfields in this price range. The 8 inch woofer is tuned quite low and thus gives more credible bass reproduction, and is less likely to bottom out on low notes than a higher tuned woofer. The 100 watt power rating can therefore be fully exploited. Their stereo soundstaging comes across very well

RRP £899
£899*
QUES-H108

VS3208 ACTIVE MONITORS

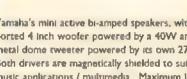


- A new model in the Quested lineup, offering tri-amped monitoring with a line-level XLR input and IEC mains connection. The cabinet is heavily built with rounded edges, and two large forward firing bass ports very close to the tweeter woofers (which are side by side off-axis, rather than d'Appolito style) and the midrange is a soft dome model. The back panel has EQ trim switches for each driver if you prefer non-flat voicings, along with gain trim

RRP £3600*
QUES-VS3208

Very helpful & cost effective - keep up the good work.
D.C. (Northfleet)

MSP5 ACTIVE SPEAKERS

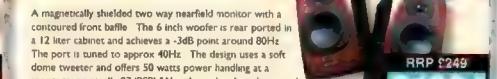


- Yamaha's mini active bi-amped speakers, with a front ported 4" inch woofer powered by a 40W amp, and a metal dome tweeter powered by its own 27W amp. Both drivers are magnetically shielded to suit desktop music applications / multimedia. Maximum long term output is around 95dB SPL broadband, and the -3dB point is quoted as 60Hz which gives them a similar voicing to Yamaha's ever popular NS10 nearfields

RRP £449
£299*
YAMA-MSP5

Prices include 17.5% VAT and apply to current stock only. UK mainland only.

REVEAL PASSIVE NEARFIELDS



- A magnetically shielded two way nearfield monitor with a contoured front baffle. The 6.5 inch woofer is rear ported in a 12 liter cabinet and achieves a 98dB SPL at 80Hz. The port is tuned to approx 40Hz. The design uses a soft dome tweeter and offers 50 watts power handling at a sensitivity nominally 87dB SPL/W with passband ripple around ±3dB above 80Hz. The drivers are crossovered over at 3kHz with good timing coherence. The Reveal is also available in a blue coloured active version

RRP £249
£199*
TANN-REVEAL

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* Our guarantee is that we will match or beat any genuine quote, on identical goods, from a UK or European dealer at time of order.

PRICES GUARANTEE*

MASTERS OF ALL TRADES!

Of all the microphone manufacturers, few have such a comprehensive range as AKG, with specialist application and general purpose mics to cover all fields. Diversity does not come at the expense of quality however, with the expertise behind classic mics like the C12 and C414 trickling down the range to more affordable levels:

C1000S CONDENSER MIC

Bright frequency response, rugged construction & battery or phantom power make this a highly versatile mic. Adaptable cardioid or hyper-cardioid response pattern, ideal for studio or stage!



RRP £199
£149*
AKG-C1000S

DT100 CLOSED HEADPHONES

There are several industry standard headphones, depending on the priorities of the user - sound quality, sound leakage, robust build, durability, easy to replace parts, size and weight etc. Studio monitoring and location recording may aspire to the same ideal, but they face different constraints. Beyer's DT100 are perhaps the closest to pleasing everybody to some extent, and hence they have become a familiar sight in the vocal booth, control room and outside broadcast settings alike.

Available impedances: 8Ω, 40Ω, 2kΩ - please specify when ordering.

RRP £125
£99*
BEYE-DT100

DT990PRO OPEN HEADPHONES

The distinction between professional headphones and high quality hi-fi headphones is a little blurry. Beyer's DT990PRO would be equally at home in both camps, exhibiting a studio friendly 80Ω nominal impedance, and a rugged durable construction with steel headband (not plastic) and circumaural ear cushions. While on the other hand, they are open backed for an airy sound without bass, and have a convenient single-sided cable and extended 10dB of 5 - 35,000Hz, and a high 96dB SPL/mV sensitivity which will better accommodate low output consumer sources driving the 8Ω load. Excluding singer's foldback cue, their open hi-fi qualities may prove useful for mixdown monitoring.

DT770 Pro CLOSED HEADPHONES

The DT770 Pro model is simply a closed back version of the DT990 Pro (above) and has otherwise identical performance criteria, with 60Ω nominal impedance, 96dB SPL/mV sensitivity, -10dB points of 5-35,000Hz, and circumaural ear cushions on a single sided cable. For the recording musician, the obvious advantage of closed headphones is improved acoustic isolation (in this case up to 15dB) between the headphones' sound and anything the mic will pick up, and vice versa, between your monitored sound and any unwanted noise from the outside world (in particular the live source whose signal path you are trying to assess.)

DT250 CLOSED HEADPHONES

Another variation on Beyerdynamic's well made closed back professional dynamic headphones. The circumaural DT250 model is available in 80Ω or 250Ω impedances and has a removable cable and spare parts available. The 80Ω model is most popular, suiting semi-pro, domestic and DJ gear, or even feeble portable stereo headphones out premises where they can give more bass before clipping. For studio use, with professional equipment, the 250Ω version would be the best choice. The sound is basically similar to the DT150, with marginally less bass extension (-10dB at 10Hz - 30kHz), but higher sensitivity at 100dB SPL/mV, and represents good value for money for a pair of quality Beyer headphones.

DT150 CLOSED HEADPHONES

Beyer's tough closed back, circumaural DT150 headphones are a new improved version of the industry standard DT100. (The model which has kept Beyerdynamic at the forefront of professional and broadcast headphone sales.) Retaining the DT100's proven reputation over the years, the newer black coloured DT150 model would be a more comfortable choice, with over 25% reduction in weight, and a range where Beyer claim -10dB points as low as 10Hz. The treble is also extended to 30kHz, along with an increase in sensitivity to 97dB SPL/mV so that they offer more output from semi-pro or domestic sources. Nominal impedance is 250Ω to keep the professionals happy.

RRP £149
BEYE-DT150

C414 MULTI PATTERN MIC

An industry standard throughout the world - impeccable sound quality together with four polar response patterns, high pass filter and pad, have kept it at the top.

C3000 LARGE DIAPHRAGM MIC

AKG large diaphragm sound at a bargain price thanks to modern manufacturing. Its bright sound and mid-peaked frequency response make it ideal for vocals, & a variety of acoustic instruments.

D3800 DYNAMIC MIC

At last a serious competitor to the SM58! The D3800 has a hypercardioid response pattern for excellent feedback rejection, and a flattering broad vocal presence lift.

SOLIDTUBE HYBRID VALVE CONDENSER

Bargain valve mic package includes PSU, shockmount, cables & windscreen. Cardioid pattern, 100Hz HPF + pad. Hybrid valve preamp, Output transformer

AKG MICROMICS

Also available...

C417 Lavaliere MicroMic

AKG-C417B £69.99

C418 Drum & Percussion MicroMic

AKG-C418B £124.99

C419 Wind Instrument MicroMic

AKG-C419B £119.99

C420 Headset MicroMic

AKG-C420B £134.99

DRUMMER'S BOXED SET

RRP £499
AKG-DRUMKIT

NT1 LARGE DIAPHRAGM MIC

Rode, having quickly made a name for themselves with the popular NT2, went from success to success with the NT1, one of the best selling budget condenser microphones we've ever witnessed. The gold plated large diaphragm capsule gives a sparkling response, and is great for all round use and particularly good on close mixed lead vocals.

You could pay more than this for a dynamic - the NT1 has to be a bargain!!

NT2 LARGE DIAPHRAGM MIC

It's not often that a new company makes a big impact in the microphone market, but Rode have certainly established themselves with the NT2. Inspired by some of the all time classic vocal mics, the NT2 has a chunky silver coloured body and stylised look, with cardioid and omnidirectional polar patterns, as well as a 10dB pad. It's sound fares well in any comparison test with similarly priced mics and is smooth with some top end sizzle. The package includes aluminum flight case, windshield and shockmount!

SM58 INDUSTRY STANDARD DYNAMIC MIC

Shure's SM58 has been the industry standard microphone for as many years as we can remember, and even today it's still a great buy. Robust enough to withstand countless heavy metal gigs, versatile enough for a wide range of studio uses, the yard-stick by which all other mics are judged, now at an unrepeatable price.

ECM907 STEREO MICROPHONE

A bargain low cost stereo microphone, which includes an adjustable angled stand for tabletop mounting. The stand has a threaded hole so it can also be screwed onto a mic stand. The ECM907 is a back electret condenser and uses an internal battery rather than phantom power. There is a captive lead (not quite visible in our picture) which terminates in a 2.5mm right-angle stereo jack plug.

HP-48 HEADPHONE AMP

A 1U rackmount 8 way headphone amplifier, which has 4 stereo input channels with individual volume controls each driving two stereo headphones, allowing up to eight musicians to listen to 4 mixes simultaneously. Alternatively, one input can feed all outputs

AKG WMS51BT

- True diversity wireless system
- Balanced and unbalanced outs
- Transmitters accept mic or line in
- Auto mute if transmitter switches off
- WMS51BT handheld also available - only £199.99

AUDIO-TECHNICA AT3525

- Back electret large diaphragm condenser
- Cardioid polar pattern, switchable HPF
- Low sensitivity 3.9mV/Pa allows high SPLs
- 20dB SPL A weighted attenuator

AUDIO-TECHNICA AT4033AP

- Back electret large diaphragm mic
- Tight cardioid pattern
- 80Hz HPF, 10dB pad, smooth response
- 25mV/Pa with 170Ω self load
- Optional shockmount & windscreen

NEUMANN TLM 103

- Large diaphragm cardioid true condenser
- Transformless output, 50Ω load
- 25mV/Pa, 21mV/Pa nominal
- 4dB, 8dB ripple, 13dB SPL peak
- Wooden case, stand clip supplied

SHURE BG1.1

- Shure's entry level dynamic mic
- Cardioid pickup, low 150Ω impedance
- Integral on/off switch, neodymium magnet
- Includes stand clip and carrying pouch

SHURE SM57

- Industry standard dynamic instrument mic
- 40Hz-15kHz (-10dB)
- Stand clip & case
- Suits Instrument and combo miking
- Smooth, unobtrusive yet robust design

AKG K55

- Low cost dynamic headphones
- Open back
- Supra-aural design
- 32Ω nominal impedance
- Response -10dB, 16-22,000 Hz

SENNHEISER HD25

- Closed back dynamic headphones
- Padded double band
- 70Ω nominal impedance
- Response -10dB, 16-22,000 Hz

SENNHEISER HD25SP

- Closed back padded supra-aural dynamics
- 200mW nominal, 200mW, 97.5dB SPL/mW
- Open 8Ω impedance
- Lightweight and very popular, especially for DJ monitoring in noisy club

AKG K141M

- ALMOST 50% OFF!
- Open back
- 600Ω nominal, 200mW, 97.5dB SPL/mW
- 18 hours battery life
- 13 single antenna receiver with squelch and volume
- Unbalanced jack output

SENNHEISER HD433

- Low cost dynamic headphones
- Open back supra-aural design
- 32Ω nominal impedance
- Response -10dB, 16-20,000 Hz

SONY MDRV50

- Lightweight padded open back dynamics
- 60Ω nominal impedance
- Response -10dB, 22-22,000 Hz

turnkey 0171 419 9999 turnkey 0171 419 9999

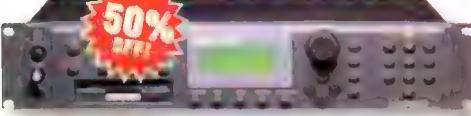
Fax: 0171 379 0093 114-116 Charing Cross Road London WC2H 0DT WC2H 0DT Web site: www.turnkey.uk.com In Eire Call: 01677 9377 Other offers may not be available when price matching. We must be able to substantiate the quote and the goods must be available and in stock.

EUROPE'S LOWEST



ESI4000 OUR BEST DEAL EVER?

SAMPLER



50% OFF

Sound on Sound magazine and making the ESI 4000 unbeatable value. An unrepeatable opportunity to own a Pro machine at a previously unimaginable price.

Huge Specification: EMU might be famous for sound but the ESI also boasts unparalleled features and ease of use:

- Full 64 Voice Polyphony
- Memory 64 patterns, up to 1.28 MB of RAM expandable to 16 MB
- 4 Sequencer Outputs (Turbulence, 64)
- 64 digital 6 pole filters with 16 voices

Turbo Version:

If you need more outputs or FX we have the Turbo at £799 with 10 outputs, SPDIF digital I/O & dual stereo 24 bit effects.

Including FREE 16MB of RAM, FREE sample library access & FREE Analog Museum time - this is probably our best ever sampler deal.

EMU E-5000 ULTRA SAMPLER

Emu's most recent Version 4.01 operating system defines the Ultra range, including the new E-5000. You get 2 stereo FX busses, 48 track sequencer, FIR filters, Beat-Munging, Transform Multiplication, and arpeggiator and 2000 presets.

Immediately distinguishable by its bright green screen, the latest offering from Emu brings the EOS 4.01 Ultra software to a new affordable price point. 64 note poly, 4MB RAM expandable to 128MB. 4 stereo analogue outs + 5CSI. Optional AES/EBU. Includes 2 CDROMs.

E-6400 ULTRA SAMPLER

• 64 voice Poly. 16bit RAM

• 8 sequencer Outputs, 64 voices

• 32 bit Dual 16 bit RAM, 40 Presets

• EOS Version 4.0 Software

RRP £1799
ZERO%

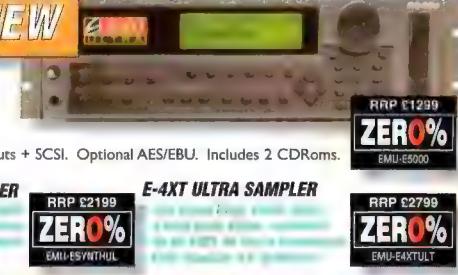
E-SYNTH ULTRA SAMPLER

RRP £2199
ZERO%

E-4XT ULTRA SAMPLER

RRP £1399
£649*
EMU-ESI4000

RRP £1499
£799*
EMU-ESI4000T



RRP £1299
ZERO%
EMU-E5000

RRP £2799
ZERO%
EMU-E4XTUL

E4K EMULATOR KEYBOARD

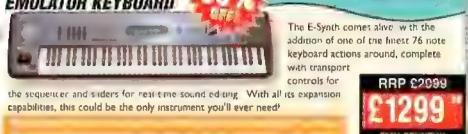
An Emu sampler keyboard with a built-in sequencer and 64 note polyphony. It's the E4K - packed the power of the E4K into a self-contained 76 note semi-weighted keyboard with pitch / mod wheels weighing under 16 kg. Traditional Emu basic spec and expandability - up to 128 note poly, built in 270MB hard drive, floppy drive, up to 128MB RAM, 16 track sequencer, 16 drum patterns, 24 bit effects, SPDIF digital I/O, 8 analog outputs, 4 stereo analogue outs + 5CSI. Optional AES/EBU. Includes 2 CDROMs.

OVER 65% OFF



RRP £3519
£1169*
EMU-E4K

E-SYNTH-K EMULATOR KEYBOARD



RRP £2099
£1299*
EMU-ESYNTHK

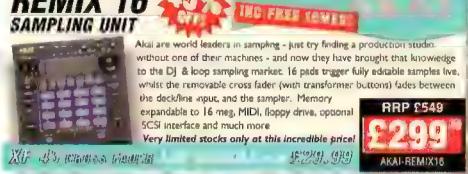
S2000 SAMPLER

OVER 35% OFF



RRP £769
£499*
AKAI-S2000

REMIX 16 SAMPLING UNIT



RRP £549
£299*
AKAI-REMIX16

S20 SAMPLER

INCLUDING 10 MB RAM PACK!



RRP £499
£299*
AKAI-S20

S3000XL SAMPLER



RRP £1399
£899*
AKAI-S3000XL

MPC 3000E SAMPLING DRUM MACHINE/SEQ

ALMOST 30% OFF



RRP £2799
£1999*
AKAI-MPC3000E

K2500 SYNTH/SAMPLE WORKSTATION



RRP £3119
£2099*
KURZ-K2500

MPC 2000 SAMPLING DRUM MACHINE

INCLUDING 32 MB RAM PACK!



RRP £1499
£699*
AKAI-MPC2000

K2500X SYNTH/SAMPLE WORKSTATION



RRP £2399*
KURZ-K2500X

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Fax: 0171 379 0093 114-116 Charing Cross Road London WC2H 0DT E-mail: sales@turnkey.demon.co.uk In Euro Call: 01677 9377

* Our guarantee is that we will match or beat any genuine quote, on identical goods, from a UK or European dealer at time of order.

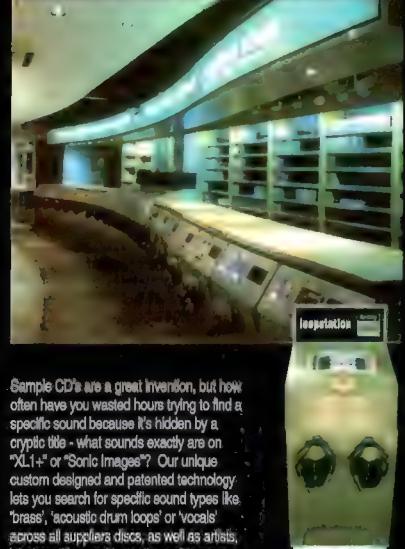
ULTRA ESI MONEY!

EMU samplers are famous for 3 things - sound, sound and sound. EMU's founder Dave Rossom was one of the early analog synth pioneers and his legendary Emulator sampler series have set sound standards for almost two decades.

Crystal clarity and bags of bottom end are EMU trademarks as are Rossom's unique 6 pole Multimode filters - four times as steep as 4 pole filters, delivering "top class, professional sound quality" to quote even at its original price. Our unbelievable £649.99 deal represents an unrepeatable opportunity to own a Pro machine at a previously unimaginable price.

SAMPLE HEAVEN

Turnkey Loopstation - the only realistic choice for samplers, accessories and library.



Sample CD's are a great invention, but how often have you wasted hours trying to find a specific sound because it's hidden by a cryptic title - what sounds exactly are on 'XL1+' or 'Sonic Images'? Our unique custom designed and patented technology lets you search for specific sound types like 'brass', 'acoustic drum loops' or 'vocals' across all supplier discs, as well as artist, labels or titles, and instantly audition any track of any CD! No other store in the world can offer you this facility. CD ROMs are similarly uniquely catered for by the only sample CD ROM jukebox in the world. We stock almost 1,000 different titles from just about every supplier in the world!

If you buy any sampler from us you'll get free unlimited access to our huge copyright free sample libraries. We have a separate dedicated copying station for almost every type of sampler (SP086 & non SCSI samplers excluded), each with its own drive array permanently attached, incorporating a 9 gig drive stuffed full of library, and Jaz, Zip and 230 meg optical removable's for taking your selections away.

If you spend £1,000 or more on sampling equipment we'll give you free time in our unique working analogue museum to grab as many sounds as you like. This is probably the world's finest collection of vintage synths, and includes many rare modulars such as the Moog 3C and 55, ARP 2600, EMU modules, Roland System 100M and System 700, as well as a host of other classics such as the EMS VCS3, Prophet 5, Mini Moog, Roland TB303 and TR909.

And as well as samplers themselves, our Custom Shop stocks the full range of memory, drives, expansion boards and accessories from every manufacturer, to turn your sampler into a dream machine. Our qualified staff will fit them while you wait! So whatever your sampling needs - we've got them covered!



10% VAT and apply to current stocks only. UK mainland. Order by Friday 19th June. Please allow 10 working days for clearance. Errors and omissions excepted. In a small number of cases, turnkey may not be able to supply a particular item.

PRICES GUARANTEE*

KEYFAX

PHATBOY II MIDI CONTROLLER



comes with a disc of MIDI musical phrases and songs to use in conjunction with your sequencer and Phatten up your sounds even more! Price includes power supply - Get Phat!

If you own a Yamaha XG or Roland GS synth, Steinberg Rebirth or just about any other sound source that can be edited with MIDI continuous controllers, your ship has just come in! Keyfax's superb Phat.Boy has thirteen knobs for you to twiddle to your heart's content, bringing your synth alive in ways you may never have thought possible!

The knobs come pre-assigned to Filter Cutoff, Resonance, Vibrato Rate, Depth & Delay, Attack, Decay, Sustain & Release, Pan, Volume, Reverb, Chorus & MIDI Channel, but can be used to control just about anything provided your sound source can re-route MIDI controllers (most can these days). The Phat.Boy even

comes with a disc of MIDI musical phrases and songs to use in conjunction with

- 13 Assignable Knobs
- Smooth Pitch Bends and Modulation
- Special Settings for Yamaha, GS and XG
- Access to any Device with MIDI Continuous

TWIDDLY BITS THE ULTIMATE IN MIDI ACCESSORIES

Twiddly Bits is a large range of instrument-specific sound bites - a guitar strum, a flute 'flutter,' a drum roll, a bass guitar slide etc. - saved as data that can be inserted into a MIDI/computer sequencer triggering any MIDI sound source.

It is impossible to program authentic sounding instrument parts just using a keyboard controller. In other words for a guitar part to sound correct you need to recreate a guitar-like voicing, velocities, sequence of notes, and this is very difficult to do playing a keyboard. The same applies to sax parts, drums, bass, etc. KEYFAK SOFTWARE has spent hundreds of studio hours recording a number of top musicians (Bill Bruford, Steve Hackett, Milton MacDonald...) playing a variety of MIDI controllers (Roland guitar synth, Simmons SDX kit, Yamaha WX7 wind controller...) in order to save, as individual pieces of data, some of the most intricate and 'difficult' motifs associated with each particular instrument.

SU10 SAMPLING UNIT



Yamaha's SU10 is a ground breaking unit, making professional quality stereo sampling available to everyone. Up to 54 seconds of sampling is available and 48 samples can be held in memory at any one time. Samples can be filtered, reversed, scaled, crossfaded, pitch-shifted and even scratched using the ribbon controller.

The built in sequencer means you can produce your own tunes using just this unit! The SU10 comes bundled with 2 free Time & Space CDs containing almost 800 samples.

SU700 SAMPLE SEQUENCER

One of the nicest new grooveboxes on the market, with the obvious encumbrances of a sequencer (clear tape transport style buttons, easy to use editing tools, 48 tracks, 480 ppq resolution, floppy disk drive etc) and a sampler (up to 6MB memory, resample effects, resonant filters, pads to play on etc.) The combined unit is perfect for sequencing sample loops and hence building grooves from drumloops and melodic phrases while adding full sequenced parts from any MIDI sound module. For the DJ, the BPM counter will come in handy too.

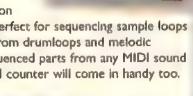
A3000 SAMPLER

Yamaha's A3000 is their first entry into the sampling market for almost ten years, but this break has allowed them to take a good look at the market and come up with a highly competitive product. 64 note polyphony, four outputs (expandable to twelve plus digital), .WAV file compatibility and memory expandable up to 128 meg, means that the A3000 must be taken seriously at this price. Call for full details or a demo.

RRP £2099

£629

YAMA-A3000



RRP £1099

£899

YAMA-A3000

EX5R WORKSTATION

The best all-round sound engine money can buy! 128 voice poly AVW synth and sampler with up to 400 individual samples per voice, with velocity switches, crossfades, key zones, on screen graphic waveform editing etc expandable to 81MB. Comes with 512 internal voices, and CD-ROM with GM set, wave editor & more! PLUS... VL Virtual Modelling synth, AN Analogue Modelling, and (unique to EX series) FDSP synthesis which treats every note and velocity differently - these wild FDSP effects work on samples too! 16 track song + 8 track pattern sequencers + 4 track arpeggiator. Disk drive, breath controller input, 6 real-time knobs, 79 effects including Aphex Exciter™. Optional AES/EBU output and SCSI interface. Reads Akai, WAV and AIFF files.



RRP £1499

£995

YAMA-EX5R

MO' PHAT!

AKAI EB-16



Compatibility:
S2000
S3000XL
CD3000XL

£299



Compatibility:
S5000
S6000

£299



Compatibility:
S2000
S3000XL
CD3000XL

£299



Compatibility:
S2000

£299



Compatibility:
ESI-32
ESI-4000

£299



Compatibility:
S3000, S3200, 3200XL, *KIT-S3000XL

Allows internal mounting of a SCSI hard drive



S1000, S1100

8 meg expansion board - up to four can be fitted simultaneously



S2800, S3000, CD3000XL, S3200XL

8 meg expansion board - up to four can be fitted simultaneously



S1000, S1100

SDIF digital I/O board allows backup to standard DAT machine or CD recorder



S2800, S3000

SDIF digital I/O board allows backup to standard DAT machine or CD recorder



S2800, S3000

SCSI board allows connection of SCSI drives for loading, saving and computer editing



MPIC200

8 individual polyphonic outputs and SPDIF digital I/O



S2000, S3000XL, CD3000XL, S3200XL

8 meg RAM board allows you to retain samples in memory even when the power is off



S2000, S3000XL, CD3000XL, S3200XL

16 meg RAM board allows you to retain samples in memory even when the power is off



S1000

SCSI board allows connection of SCSI drives for loading, saving and computer editing



S5000, S6000

16 channel digital I/O (ADAT)



S5000

8 output expansion board



S5000

64 voice expansion board



E-6400 EIV

Gives two multi effects buses with high quality reverb, chorus, delay etc



E-6400 E-Synth

Gives AES/EBU digital I/O and ASCII keyboard port for easy tiling



E-MU MOUNTING KIT

E-6400, E-Synth

Gives a range of onboard ROM sounds as featured in the E-Synth



E-MU DANCE ROM

E-6400, EIV/E4K, E4K/E Synth

16MB of ROM and ROM RAM



E-MU FLASH RAM 16

E-64, E-6400, EIV/E4K, E4K/E-Synth

16MB flash RAM board allows you to retain samples in memory when the power is off



E-MU FLASH RAM 8

E-64, E-6400, EIV/E4K, E4K/E-Synth

8MB flash RAM board allows you to retain samples in memory when the power is off



E-MU EOS V3

E-64, E-6400, EIV/E4K, E4K/E-Synth

Includes fully fledged sequencer, arpeggiator, new filters and full sysex implementation



E-MU DIGITAL OPTION

E-MU/DIGI, ESI-32

Gives digital input and output in SPDIF format



E-MU SCSI OPTION

E-MU/SCSI/SPI, ESI-32

Seventeen filter types, improved SCSI performance and many extra DSP processes



KURZWEIL ROM-1

KURZWEIL ROM-1

K2000 (E49), K2500, RMB-P or RMB-R2 required

8 meg ROM board including samples, programs, effects, etc



KURZWEIL ROM-2

K2000 (E49), K2500, RMB-P or RMB-R2 required

8 meg ROM board including samples, programs, keymaps, effects, samples and QA banks



KURZWEIL ROM-3

K2000 (E49), K2500, RMB-P or RMB-R2 required

8 meg ROM board including samples, programs, keymaps, effects, samples and QA banks

KURZWEIL ROM-4

K2000 (E49), K2500, RMB-P or RMB-R2 required

8 meg ROM board including samples, programs, keymaps, effects, samples and QA banks

KURZWEIL ROM-5

K2000 (E49), K2500, RMB-P or RMB-R2 required

8 meg ROM board including samples, programs, keymaps, effects, samples and QA banks

KURZWEIL ROM-6

K2000 (E49), K2500, RMB-P or RMB-R2 required

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KURZWEIL ROM-7

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8 meg ROM board including samples, programs, keymaps, effects, samples and QA banks

KURZWEIL ROM-8

K2000 (E49), K2500, RMB-P or RMB-R2 required

8 meg ROM board including samples, programs, keymaps, effects, samples and QA banks

KURZWEIL ROM-9

K2000 (E49), K2500, RMB-P or RMB-R2 required

8 meg ROM board including samples, programs, keymaps, effects, samples and QA banks

KURZWEIL ROM-10

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8 meg ROM board including samples, programs, keymaps, effects, samples and QA banks

KURZWEIL ROM-11

K2000 (E49), K2500, RMB-P or RMB-R2 required

8 meg ROM board including samples, programs, keymaps, effects, samples and QA banks

KURZWEIL ROM-12

K2000 (E49), K2500, RMB-P or RMB-R2 required

8 meg ROM board including samples, programs, keymaps, effects, samples and QA banks

KURZWEIL ROM-13

K2000 (E49), K2500, RMB-P or RMB-R2 required

8 meg ROM board including samples, programs, keymaps, effects, samples and QA banks

KURZWEIL ROM-14

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8 meg ROM board including samples, programs, keymaps, effects, samples and QA banks

KURZWEIL ROM-15

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8 meg ROM board including samples, programs, keymaps, effects, samples and QA banks

KURZWEIL ROM-16

K2000 (E49), K2500, RMB-P or RMB-R2 required

8 meg ROM board including samples, programs, keymaps, effects, samples and QA banks

KURZWEIL ROM-17

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8 meg ROM board including samples, programs, keymaps, effects, samples and QA banks

KURZWEIL ROM-18

K2000 (E49), K2500, RMB-P or RMB-R2 required

8 meg ROM board including samples, programs, keymaps, effects, samples and QA banks

KURZWEIL ROM-19

K2000 (E49), K2500, RMB-P or RMB-R2 required

8 meg ROM board including samples, programs, keymaps, effects, samples and QA banks

KURZWEIL ROM-20

K2000 (E49), K2500, RMB-P or RMB-R2 required

8 meg ROM board including samples, programs, keymaps, effects, samples and QA banks

KURZWEIL ROM-21

K2000 (E49), K2500, RMB-P or RMB-R2 required

8 meg ROM board including samples, programs, keymaps, effects, samples and QA banks

KURZWEIL ROM-22

K2000 (E49), K2500, RMB-P or RMB-R2 required

8 meg ROM board including samples, programs, keymaps, effects, samples and QA banks

KURZWEIL ROM-23

K2000 (E49), K2500, RMB-P or RMB-R2 required

8 meg ROM board including samples, programs, keymaps, effects, samples and QA banks

EUROPE'S LOWEST



PRICEWATCH
MEANS WE'RE
ALWAYS CHEAPEST!

DAT

QUANTEGY (formerly Ampex)	Product Code	I	10+
15 Min	MED-AMFDAT15	£4.99	£3.69
30 Min	MED-AMFDAT30	£5.99	£3.99
46 Min	MED-AMFDAT46	£6.99	£4.89
60 Min	MED-AMFDAT60	£7.99	£5.49
90 Min	MED-AMFDAT90	£8.99	£6.29
120 Min	MED-AMFDAT120	£9.99	£7.69

APOGEE

	Product Code	I	10+
19 Min	MED-APODAT19	£4.99	£3.69
34 Min	MED-APODAT34	£5.99	£3.99
64 Min	MED-APODAT64	£7.99	£5.49
94 Min	MED-APODAT94	£8.99	£6.29
124 Min	MED-APODAT124	£9.99	£7.69

HHB

	Product Code	I	10+
15 Min	MED-HHBDAT15	£4.99	£3.69
35 Min	MED-HHBDAT35	£5.99	£4.09
50 Min	MED-HHBDAT50	£6.99	£5.49
65 Min	MED-HHBDAT65	£6.99	£5.49
95 Min	MED-HHBDAT95	£7.99	£6.49
125 Min	MED-HHBDAT125	£8.99	£6.39

HAXELL

	Product Code	I	10+
20 Min	MED-MAXDAT20	£4.79	£3.69
30 Min	MED-MAXDAT30	£4.99	£3.99
40 Min	MED-MAXDAT40	£5.69	£4.89
60 Min	MED-MAXDAT60	£6.69	£5.49
90 Min	MED-MAXDAT90	£7.88	£6.29
120 Min	MED-MAXDAT120	£8.99	£7.69
180 Min	MED-MAXDAT180	£9.99	£8.99
DAT CLEANING TAPE	MED-DATCL	£9.99	£7.99

OPEN REEL TAPE

QUANTEGY (formerly Ampex)	Product Code	I	10+
406	MED-406/14	£16.99	£14.99

456

	Product Code	I	10+
1/4" X 7"	MED-456/17	£9.99	£8.99
1/4" X 10.5"	MED-456/4/10	£19.99	£16.49
1" X 10.5"	MED-456/1	£59.99	£48.99
1/2" X 10.5"	MED-456/1/2	£39.99	£30.99
2" X 10.5"	MED-456/2	£129.99	£104.99

457

	Product Code	I	10+
1/4" X 7"	MED-457	£13.99	£10.69

499

	Product Code	I	10+
1/4" X 10.5"	MED-499/1/4	£22.99	£19.49

	Product Code	I	10+
1/2" X 10.5"	MED-499/1/2	£41.99	£36.99

	Product Code	I	10+
1" X 10.5"	MED-499/1	£64.99	£57.99

	Product Code	I	10+
2" X 10.5"	MED-499/2	£139.99	£119.99

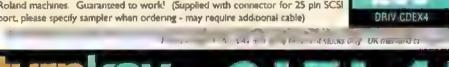
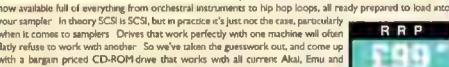
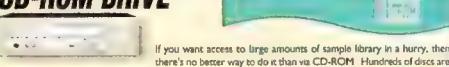
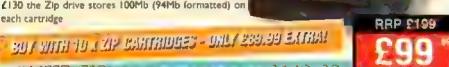
Possible memory configurations vary widely from model to model, please check when purchasing.



With memory sizes of samplers ever expanding, and more audio tracks abounding, a SCSI device for storing all your sounds is well nigh essential. Choose from our extensive range of drives...



Most drives come supplied with a cable to connect to a 25 pin SCSI port. Check out the cables section for other connections.



PRICES GUARANTEE*



QUIK LOK

WS/500



- A stand to hold your whole studio!
- Multiple adjustments for excellent ergonomics
- Further range of add-ons available

QL/622



- Lightweight X keyboard stand
- Tilt adjustable second tier
- Height 86cm to 93cm

RRP £69
CL-QL622

WS/550



- Superb heavy duty folding stand
- Suits large 88 note keyboards
- Height 61cm to 81cm
- Load 113kg
- Holes for attaching shelves etc.

RRP £99
CL-W550

BX/10



- Cushioned plinth stool
- Seat 25cm x 53cm
- Height 40cm to 61cm

RRP £35
CL-BX10

"GIANT" STK-ST1

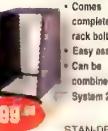
- Speaker stand with tripod base
- Huge 1.3m spread
- Includes Omnimount Top Hat
- Price is per stand



RRP £38
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SYSTEM 2000 STUDIO RACK

- Complete with casters
- Racking available on front, back & top
- Sturdy design
- Optional 10u table top rack can be bolted on top



RRP £89
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RRP £24
CL-STAN-KEY



- Comes complete with rack bolts
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- Can be combined with System 2000
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- Supports are each 35cm deep

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- Lightweight X keyboard stand
- Height adjustable - approx 50cm to 100cm
- Supports are each 35cm deep

RRP £39
CL-STAN-KEY2

RS/655

- 10U straight trolley rack
- Enclosed side panels
- Max depth 40cm, 68kg load

RRP £99
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RS/656

- 10U extension rack
- Adds on to the RS/655
- Max depth for your gear: 40cm

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CL-RS656

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Jack - Jack		CAB-JK1MC	£5.99
Jack - Jack		CAB-JK3MC	£9.49
Jack - Jack		CAB-JK6MC	£11.49

INSERT		GUARANTEE	
Jack TRS - 2x Jack		CAB-INSJK1.5M	£7.99
Jack TRS - 2x Jack		CAB-INSJK3M	£9.99
Jack TRS - 2x Phono		CAB-INSJK1PH	£6.99

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Phono - Phono		CAB-PHWP1.5M	£4.99
Stereo Phono - Phono		CAB-PH1.5M2	£4.99

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8 way Jack-Phono		LOOM-P8/3M	£34.99
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Oram tells us that the new Hi-Def, apart from not having the hand-sculptured front panel, is identical to the HD-EQ2 and has the same killer sound.

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Hi-Def was £3149 - Hi-Def 35 EXCLUSIVE to Digital Village only... £1276

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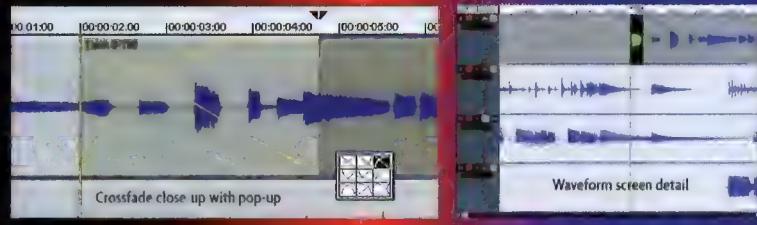


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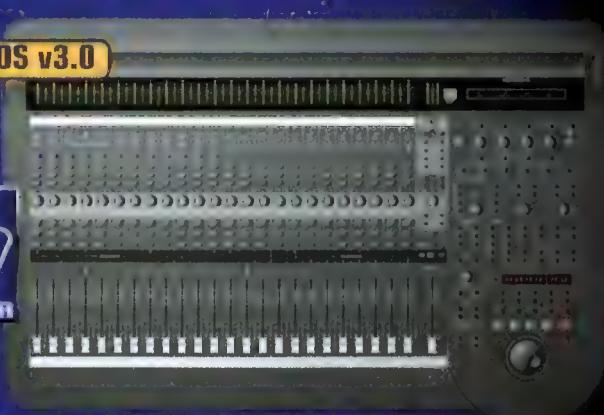
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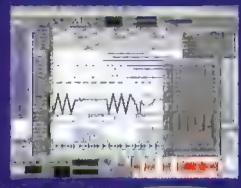
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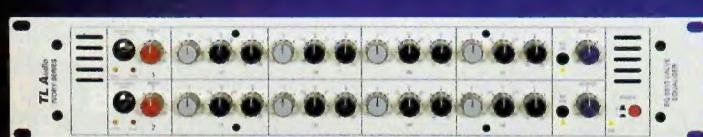


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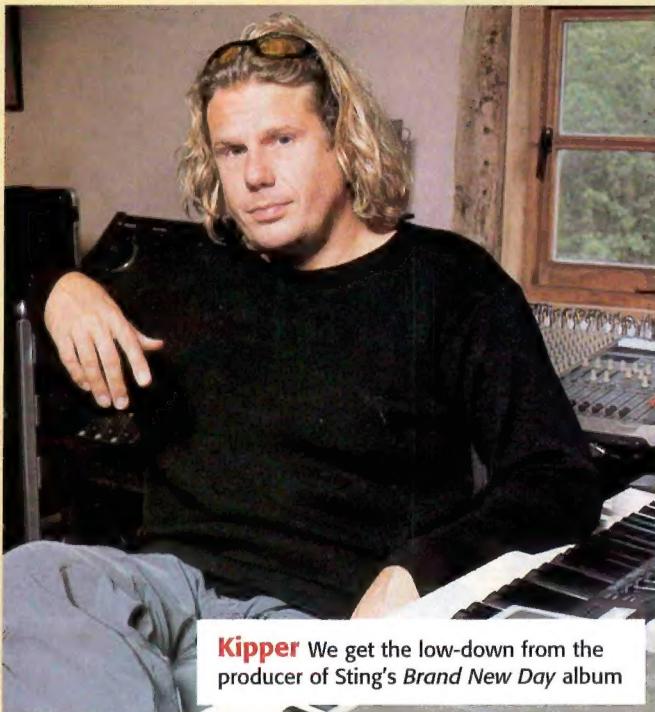
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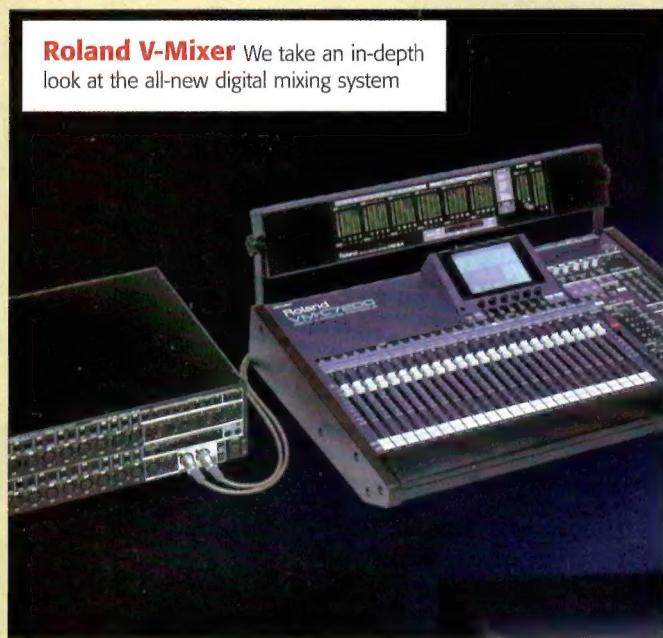
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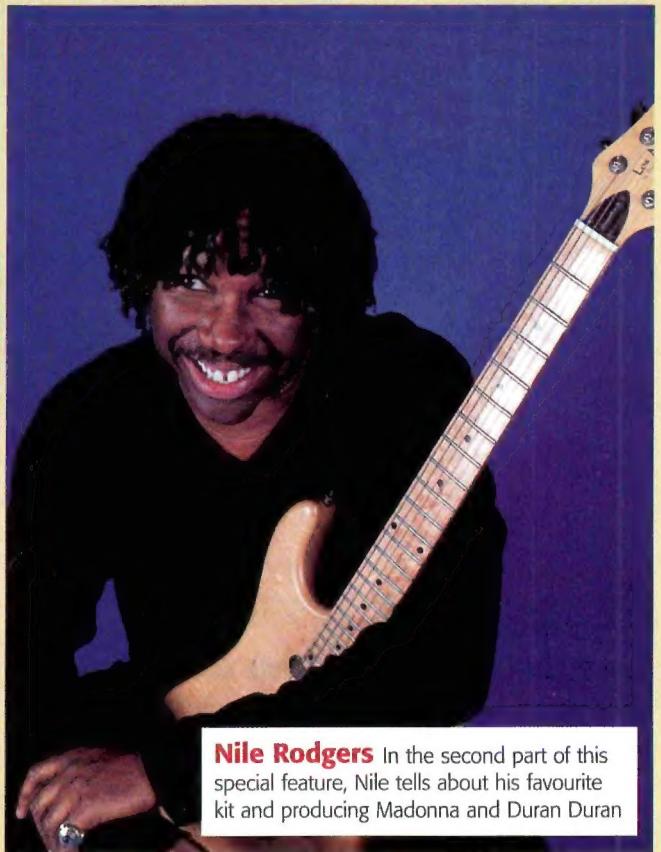
Kipper We get the low-down from the producer of Sting's *Brand New Day* album



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